Control Number: 51415

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SOAH DOCKET NO. 473-21-0538
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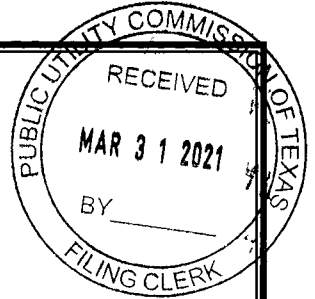
APPLICATION OF SOUTHWESTERN ELECTRIC POWER COMPANY FOR AUTHORITY TO CHANGE RATES	)))))

BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS

Direct Testimony and Exhibits of

Michael P. Gorman

On behalf of

Texas Industrial Energy Consumers

March 31, 2021

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BRUBAKER & ASSOCIATES, INC.

APPLICATION OF SOUTHWESTERN ELECTRIC POWER COMPANY FOR AUTHORITY TO CHANGE RATES	)))))	BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS

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BRUBAKER & ASSOCIATES, INC.

SOAH DOCKET NO. 473-21-0538
PUC DOCKET NO. 51415

	)	
APPLICATION OF SOUTHWESTERN	)	BEFORE THE
ELECTRIC POWER COMPANY FOR	)	PUBLIC UTILITY COMMISSION
AUTHORITY TO CHANGE RATES	)	OF TEXAS
	)	

Affidavit of Michael P. Gorman

State of Missouri   )
)   SS

County of Saint Louis   )

Michael P. Gorman, being first duly sworn, on his oath states:

1.   My name is Michael P. Gorman. I am a Managing Principal with Brubaker & Associates, Inc., 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017. We have been retained by Texas Industrial Energy Consumers to testify in this proceeding on their behalf.

2.   Attached hereto and made a part hereof for all purposes are my direct testimony and exhibits which were prepared in written form for introduction into evidence in Public Utility Commission of Texas Docket No. 51415.

3.   I hereby swear and affirm that the testimony and exhibits are true and correct and that they show the matters and things that they purport to show.

_____
Michael P. Gorman

Subscribed and sworn to before me this 31st day of March, 2021.
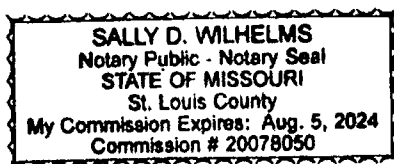
SALLY D. WILHELMS
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: Aug. 5, 2024
Commission # 20078050

_____
Notary Public

BRUBAKER & ASSOCIATES, INC.

SOAH DOCKET NO. 473-21-0538
PUC DOCKET NO. 51415

APPLICATION OF SOUTHWESTERN ELECTRIC POWER COMPANY FOR AUTHORITY TO CHANGE RATES	BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS

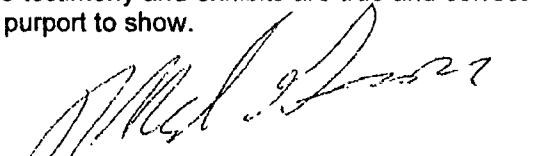## Direct Testimony of Michael P. Gorman

1 Q **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,

3 Chesterfield, MO 63017.

4 Q **WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and a Managing Principal of

6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 Q **PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This information is included in Appendix A to this testimony.

9 Q **ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

10 A I am testifying on behalf of Texas Industrial Energy Consumers ("TIEC"). TIEC's

11 member companies own and operate industrial facilities in the Southwestern Electric

12 Power Company ("SWEPCO" or "Company") service territory and purchase electricity

13 from SWEPCO.

BRUBAKER & ASSOCIATES, INC.

1 Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

2 A My testimony will address SWEPCO's overall rate of return including return on equity,

3 embedded debt cost, and ratemaking capital structure.

4 Q DOES THE FACT THAT YOU DID NOT ADDRESS EVERY ISSUE RAISED IN

5 SWEPCO'S TESTIMONY MEAN THAT YOU AGREE WITH SWEPCO'S

6 TESTIMONY ON THOSE ISSUES?

7 A No. It merely reflects that I chose not to address all those issues in my testimony. It

8 should not be read as an endorsement of, or agreement with, SWEPCO's position on

9 such issues.

10 Q PLEASE SUMMARIZE THE PURPOSE OF YOUR TESTIMONY.

11 A In my testimony, I will address an overall rate of return for SWEPCO that provides fair

12 compensation, maintains its credit rating and financial integrity, and preserves its

13 access to capital, but accomplishes this at the lowest possible prices to its retail

14 customers.

15 Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS ON

16 RETURN ON EQUITY.

17 A I recommend the Public Utility Commission of Texas ("Commission" or "PUCT") award

18 a return on common equity in the range of 8.90% to 9.35%, with a midpoint of 9.15%.

19 This return on equity reflects SWEPCO's current market cost of equity. I recommend

20 the Commission approve a return on equity that reflects SWEPCO's investment risk,

21 and charges customers no more than necessary to fairly compensate SWEPCO and

22 maintain its financial integrity and credit standing.

1 Q WILL YOU ALSO RESPOND TO THE COMPANY'S REQUESTED RETURN ON

2 EQUITY?

3 A Yes. I also respond to SWEPCO witness Mr. Dylan W. D'Ascendis' return on equity

4 recommendation. Mr. D'Ascendis recommends an equity return in the range of 10.32%

5 to 11.43%, and return on equity of 10.35%.[1] Mr. D'Ascendis' recommended return on

6 equity for SWEPCO substantially exceeds a fair return on equity and unjustifiably

7 inflates rates to customers above a just and reasonable level.

8 Q WHAT IS YOUR RECOMMENDED RATE OF RETURN TO BE USED TO SET RATES

9 FOR SWEPCO?

10 A As shown on my Exhibit MPG-1, my recommended overall rate of return is 6.63%,

11 which reflects my recommended return on equity of 9.15% and the Company's

12 proposed capital structure.

13 **I. RATE OF RETURN**

14 Q PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.

15 A In this section, I will provide observable market evidence and a detailed analysis to

16 demonstrate that my recommended rate of return will support SWEPCO's financial

17 integrity and access to capital. Specifically, I will use market-based models to estimate

18 the current market-required rate of return investors demand to assume the risk of an

19 investment similar to SWEPCO, and a credit metric analysis to assess the

20 reasonableness of my recommended rate of return.

---

[1] D'Ascendis Direct Testimony at 6-7.

1 **I.A Utility Industry Authorized Returns on Equity,**
2 **Access to Capital, and Credit Strength**

3 **Q PLEASE DESCRIBE THE OBSERVABLE EVIDENCE ON TRENDS IN**

4 **AUTHORIZED RETURNS ON EQUITY FOR REGULATED UTILITIES.**

5 A As illustrated in Figure 1 below, national average authorized returns on equity for both

6 electric and gas utilities have declined over the last several years and have been

7 reasonably stable around the mid 9% range for both electric and gas regulated utilities.

FIGURE 1

Authorized Returns on Equity*
(Exclude Limited Issue Riders)

ROE Distributions[2]

Electric Utilities	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<= Average	56 0%	59 5%	51 4%	59 0%	51 7%	55 0%	51 9%	52 4%	57 6%	60 0%	53 1%	60 5%	47 4%	45 5%	33 3%
> Average	44 0%	40 5%	48 6%	41 0%	48 3%	45 0%	48 1%	47 6%	42 4%	40 0%	46 9%	39 5%	52 6%	54 5%	66 7%
Gas Utilities															
<= Average	46 7%	51 4%	50 0%	50 0%	56 4%	31 3%	45 7%	47 6%	50 0%	50 0%	53 8%	70 8%	47 5%	53 1%	52 9%
> Average	53 3%	48 6%	50 0%	50 0%	43 6%	68 8%	54 3%	52 4%	50 0%	50 0%	46 2%	29 2%	52 5%	46 9%	47 1%

Source and Notes
[1] S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions -- January - December 2020, February 2, 2021 at page 1
[2] Download from S&P Global Market Intelligence, March 18, 2021
* Electric Returns exclude Limited Issue Rider Decisions
* RRA excludes the 2017 Alaska ENSTAR decision from its Industry Average

8 As outlined above in Figure 1, authorized returns on equity for both electric and gas

9 utilities have dropped below 9.5% to 9.39% and 9.46%, respectively, in 2020.

10 I would note that even with this decline in authorized returns on equity, electric

11 and gas utilities' credit outlooks are still largely classified as "Stable" by credit rating

12 agencies, and these utilities still have ready access to significant amounts of capital to

13 support very large investments in rate base infrastructure. For these reasons,

1   observable market evidence shows that customers are benefitting from declining

2   capital market costs, and utilities remain able to fund significant rate base investments

3   even with lower returns on equity that reflect today's very low capital market costs.

4   Q   **HAVE UTILITIES BEEN ABLE TO ACCESS EXTERNAL CAPITAL TO SUPPORT**

5   **CAPITAL EXPENDITURE PROGRAMS?**

6   A   Yes. In its October 2020 Utility Capital Expenditures Update report, *RRA Financial*

7   *Focus*, a division of S&P Global Market Intelligence, made several relevant comments

8   about utility investments generally:

9   •   Projected 2020 capital expenditures for the 47 energy utilities in the
10   Regulatory Research Associates, a group within S&P Global Market
11   Intelligence, universe currently stands at roughly $141.3 billion, well
12   above 2019's $120.7 billion in capital investment.

13   •   2019's energy capital expenditures were a record high, and 5%
14   above the $115.1 billion posted in 2018.

15   *   *   *

16   The nation's electric and gas utilities are investing in infrastructure to
17   upgrade aging transmission and distribution systems, build new natural
18   gas, solar and wind generation, and implement new technologies,
19   including smart meter deployment, smart grid systems, cybersecurity
20   measures and battery storage. We expect considerable levels of
21   spending to serve as the basis for solid profit expansion for the
22   foreseeable future.[2]

23   As shown in Figure 2 below, capital expenditures for electric and natural gas

24   utilities have increased considerably over the period 2009 into 2020, and the forecasted

25   capital expenditures remain elevated.

---

[2]*S&P Global Market Intelligence, RRA Financial Focus*: "Utility Capital Expenditures Update,"
October 29, 2020, at 1.

FIGURE 2

Utility Capital Expenditures
(Dollars in Millions)

*Other category consists of utilities that do not report capital expenditures by category: Avangrid, Hawaiian Electric, PG&E and Portland General Electric.
Source: *S&P Global Market Intelligence, RRA Financial Focus*, Utility Capital Expenditures Update, October 29, 2020, Tables 1 and 3.
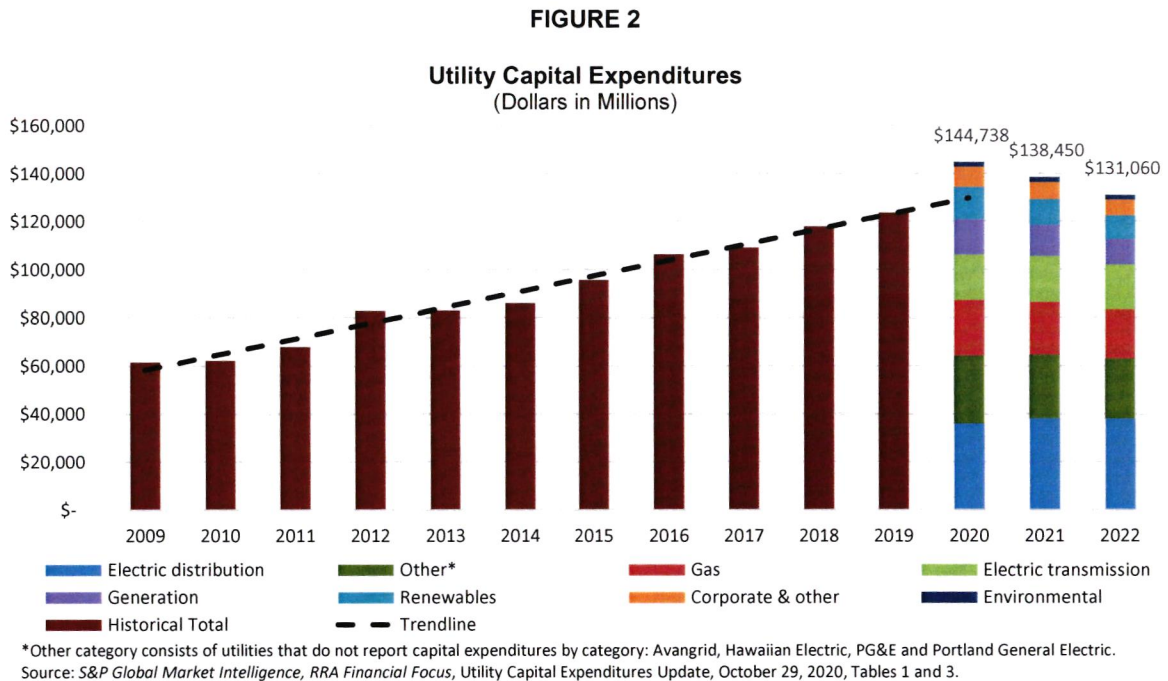
1   As outlined in Figure 2 above, and in the comments made by *RRA S&P Global*

2   *Market Intelligence*, capital investments for the utility industry continue to stay at

3   elevated levels, and will fuel utilities' profit expansion into the foreseeable future. This

4   is clear evidence that the capital investments are enhancing shareholder value, and

5   are attracting both equity and debt capital to the utility industry in a manner that allows

6   for these high capital investment levels. While these profit-driven capital investments

7   are embraced by the capital markets, regulatory commissions also must keep a careful

8   view toward maintaining reasonable rates of return to protect customers' need for

9   reliable service at reasonable prices.

10 **Q**   **IS THERE EVIDENCE OF ROBUST VALUATIONS OF REGULATED UTILITY**

11   **EQUITY SECURITIES?**

12 **A**   Yes. Robust valuations are an indication that utilities can sell securities at high prices,

13   which is a strong indication that they can access equity capital under reasonable terms

1   and conditions, and at relatively low cost. As shown on Exhibit MPG-2, the historical

2   valuation of electric and gas utilities followed by *The Value Line Investment Survey*

3   ("*Value Line*"), based on their price-to-earnings ("P/E") ratios, price-to-cash flow

4   ("P/CF") ratios, and market price-to-book value ("M/B") ratios, indicates that utility

5   security valuations today are very strong and robust relative to the last several years.

6   These strong valuations of utility stocks indicate that utilities have access to equity

7   capital under reasonable terms at relatively low cost.

8   **Q**   **PLEASE DESCRIBE UTILITY STOCK PRICE PERFORMANCE OVER THE LAST**

9   **SEVERAL YEARS.**

10   **A**   As shown in Figure 3 below, S&P Global Market Intelligence ("MI") has recorded utility

11   stock price performance compared to the market. The industry's stock performance

12   data from 2005 through 2020 shows that the MI Electric Company and MI Gas Utility

13   Indexes have followed the market through downturns and recoveries. However, utility

14   investments have been less volatile during extreme market downturns. This more

15   stable price performance for utilities supports my conclusion that market participants

16   regard utility stock sectors as a moderate- to low-risk investment option.

FIGURE 3

Index Comparison

Source: S&P Global Market Intelligence.
*Data through December 2020
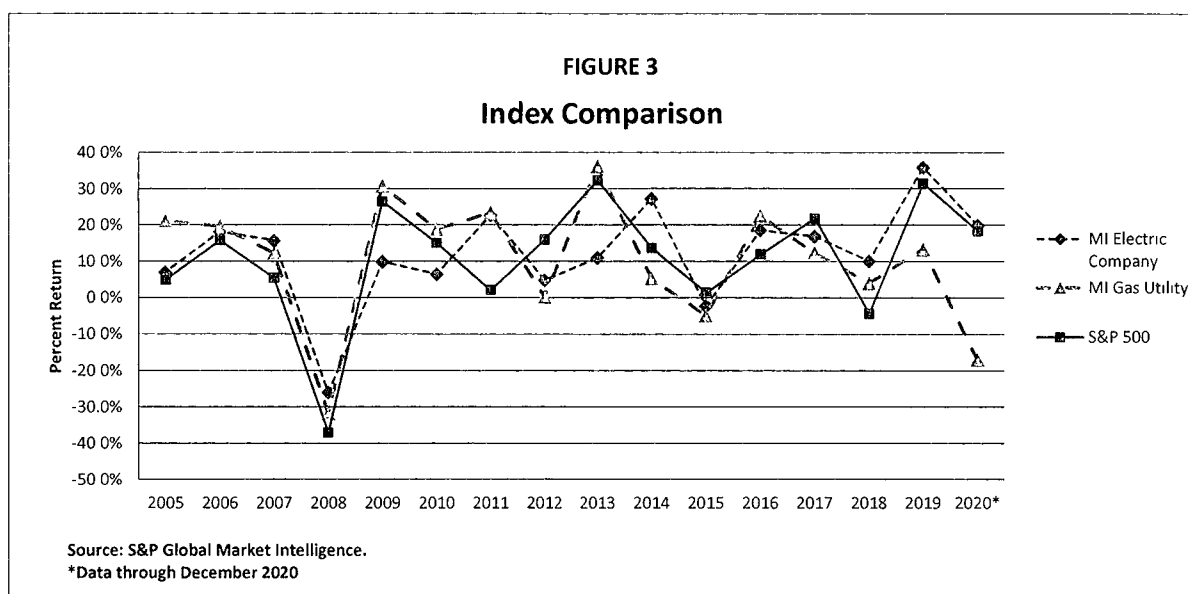
1   While utility stocks have not exhibited the same volatility as the S&P 500, stock

2   prices have remained strong, relative to the market in general, and support the utilities'

3   access to equity capital markets under reasonable terms and prices.

4 Q   **HOW SHOULD THE COMMISSION USE THIS MARKET INFORMATION IN**

5   **ASSESSING A FAIR RETURN FOR SWEPCO?**

6 A   Observable market evidence demonstrates that capital market costs are near

7   historically low levels. While authorized returns on equity have fallen below the mid-

8   9% range, utilities continue to have access to large amounts of external capital, even

9   as they are funding large capital expenditure programs. Furthermore, utilities'

10   investment-grade credit ratings are stable and have improved, due in part to supportive

11   regulatory treatment. The Commission should carefully weigh all this important

12   observable market evidence in assessing a fair return on equity for SWEPCO.
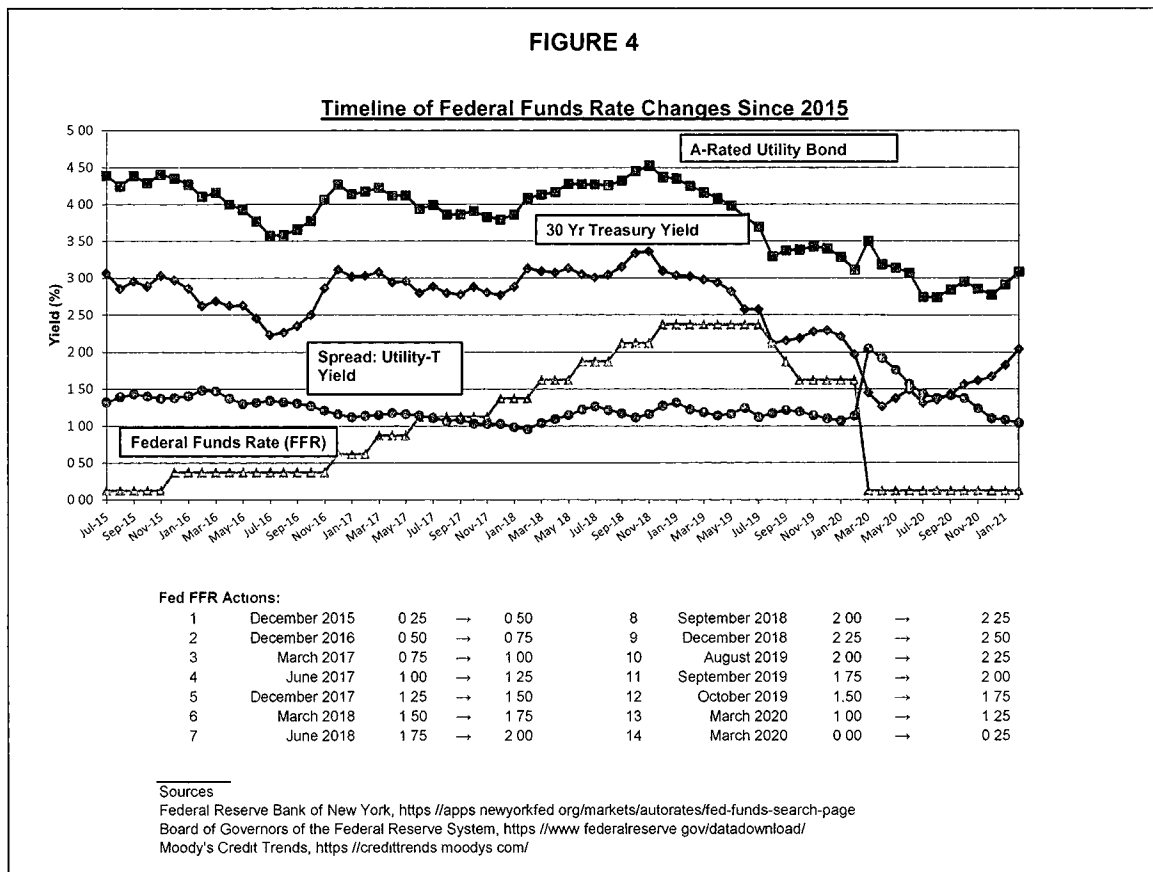
1 **I.B. Federal Reserve's Impact on Cost of Capital**

2 Q DO YOU BELIEVE THAT THE FEDERAL RESERVE'S ACTIONS ARE FULLY

3   KNOWN BY MARKET PARTICIPANTS AND FULLY REFLECTED IN THE

4   VALUATION OF MARKET SECURITIES, BOTH DEBT AND EQUITY?

5 A Yes, I do. The Federal Reserve's previous actions on Quantitative Easing and more

6   recent reentry into the Treasury, mortgage-backed security, and now, to a limited

7   extent, corporate bond markets were done in order to preserve stability and liquidity in

8   the market and to calm the marketplace. The effects of these measures, and the

9   outlooks by independent economists, continue to support the notion that capital market

10   costs will stay low for an extended period of time. Indeed, this can be seen through

11   observing independent economists' projections, as well as the observable effects of

12   the Federal Reserve's actions on short-term market costs and long-term security costs.

13   An assessment of the market's reaction to the Federal Reserve's actions on the

14   Federal Funds Rate is shown below in Figure 4.

FIGURE 4

Timeline of Federal Funds Rate Changes Since 2015

Fed FFR Actions:

1	December 2015	0 25	→	0 50	8	September 2018	2 00	→	2 25
2	December 2016	0 50	→	0 75	9	December 2018	2 25	→	2 50
3	March 2017	0 75	→	1 00	10	August 2019	2 00	→	2 25
4	June 2017	1 00	→	1 25	11	September 2019	1 75	→	2 00
5	December 2017	1 25	→	1 50	12	October 2019	1.50	→	1 75
6	March 2018	1 50	→	1 75	13	March 2020	1 00	→	1 25
7	June 2018	1 75	→	2 00	14	March 2020	0 00	→	0 25

Sources
Federal Reserve Bank of New York, https //apps newyorkfed org/markets/autorates/fed-funds-search-page
Board of Governors of the Federal Reserve System, https //www federalreserve gov/datadownload/
Moody's Credit Trends, https //credittrends moodys com/

1   As shown in Figure 4 above, while the Federal Reserve has reduced short-term

2   interest rates currently, as it did back in the period prior to 2015, the market's valuation

3   of long-term securities remains relatively stable, and at very low costs. The Federal

4   Reserve's interaction in short-term securities is specifically stated to manage inflation

5   and support employment in the economy. The Federal Reserve's interaction in these

6   marketplaces is not to manipulate utility valuation or security valuations, or drive capital

7   market costs in one direction or the other. Rather, it is strictly for the purpose of

8   supporting the U.S. economy.

1   **Q**   **WHAT DO INDEPENDENT ECONOMISTS' OUTLOOKS FOR FUTURE INTEREST**

2   **RATES INDICATE?**

3   **A**   Independent economists expect the current low capital costs to prevail over at least the

4   intermediate term. This is illustrated in projections for both short- and long-term

5   changes in interest rates. Further, there is a clear trend in forecasted changes in

6   interest rates over time, indicating that capital market participants are becoming more

7   comfortable with today's low-cost capital market environment and expect it to prevail

8   over at least the intermediate future.

9   For example, short-term projections suggest that the market expects capital

10   market costs to remain relatively low. Table 1 below shows capital cost projections

11   over the next two years, and demonstrates that projected Treasury bond yields are not

12   expected to increase significantly over the next two years.

TABLE 1

Blue Chip Financial Forecasts
Projected Federal Funds Rate, 30-Year Treasury Bond Yields, and GDP Price Index

Publication Date	3Q 2020	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022
Federal Funds Rate								
Oct-20	**0.1**	0.1	0.1	0.1	0.1	0.1	0.1	
Nov-20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Dec-20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Jan-21		**0.1**	0.1	0.1	0.1	0.1	0.1	0.1
Feb-21		0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mar-21		0.1	0.1	0.1	0.1	0.1	0.1	0.1
T-Bond, 30 yr.								
Oct-20	**1.4**	1.5	1.6	1.6	1.7	1.8	1.9	
Nov-20	1.4	1.5	1.6	1.7	1.8	1.9	2.0	
Dec-20	1.4	1.6	1.6	1.8	1.8	1.9	2.0	
Jan-21		**1.6**	1.7	1.8	1.9	2.0	2.1	2.1
Feb-21		1.6	1.8	1.9	2.0	2.1	2.1	2.2
Mar-21		1.6	2.0	2.1	2.2	2.3	2.4	2.4
GDP Price Index								
Oct-20	**1.9**	1.5	1.7	1.5	1.7	1.7	1.8	
Nov-20	3.6	1.6	1.7	1.5	1.7	1.7	1.8	
Dec-20	3.6	1.7	1.7	1.8	1.8	1.8	1.8	
Jan-21		**1.6**	1.8	1.8	1.8	1.8	1.9	1.9
Feb-21		2.0	1.8	1.7	1.9	1.9	1.9	2.0
Mar-21		2.1	2.2	1.8	1.9	1.9	1.9	2.0

Source and Note:
Blue Chip Financial Forecasts, August 2020 through March 2021.
Actual Yields in Bold

1 Further, the outlook for long-term interest rates in the intermediate to longer

2 term is also impacted by the current Federal Reserve actions and the expectation that

3 eventually the Federal Reserve's monetary actions will return to more normal levels.

4 Long-term interest rate projections are illustrated in Table 2 below.

TABLE 2

30-Year Treasury Bond Yield Actual Vs. Projection

Description	Quarterly Average	2-Year Projected	5- to 10-Year Projected
2015			
Q1	2.97%	4.00%	4.9% - 5.1%
Q2	2.55%	3.70%	
Q3	2.83%	4.00%	4.8% - 5.0%
Q4	2.84%	3.90%	
2016			
Q1	2.96%	3.80%	4.5% - 4.8%
Q2	2.72%	3.60%	
Q3	2.64%	3.40%	4.3% - 4.6%
Q4	2.29%	3.10%	
2017			
Q1	2.82%	3.70%	4.2% - 4.5%
Q2	3.05%	3.80%	
Q3	2.91%	3.70%	4.3% - 4.5%
Q4	2.82%	3.60%	
2018			
Q1	2.82%	3.60%	4.1% - 4.3%
Q2	3.02%	3.80%	
Q3	3.09%	3.80%	4.2% - 4.4%
Q4	3.07%	3.70%	
2019			
Q1	3.27%	3.40%	3.9% - 4.2%
Q2	3.01%	3.10%	
Q3	2.78%	2.60%	3.6% - 3.8%
Q4	2.30%	2.50%	
2020			
Q1	2.30%	2.60%	3.2% - 3.7%
Q2	1.89%	1.90%	
Q3	1.38%	1.90%	2.8% - 3.6%
Q4	1.36%	1.90%	

Sources:

Blue Chip Financial Forecasts,
December 2013 through December 2020.

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1   As shown in Table 2 above, independent economists' projections of changes in

2   long-term Treasury rates are very different today than they were over the last five to six

3   years. Specifically, in 2015 economists were expecting that Treasury bond yields,

4   which fell below 3%, would eventually return to the high 4-5% area. That outlook largely

5   remained through 2016, but the outlook for future capital market costs started to decline

6   in 2017. More recently, Treasury bond yields have dropped to historically low levels

7   but are expected to stay low for the next five to ten years.

8   Again, the market is fully aware of the Federal Reserve's actions, and these

9   actions are not expected to have significant changes in capital market costs over the

10 next five to ten years. Further, the Federal Reserve's actions are expected to maintain

11 relatively stable capital market costs over the next two years.

12 **I.C. COVID-19 Pandemic**

13 **Q   HAVE REGULATORY COMMISSIONS TAKEN SPECIFIC MEASURES TO HELP**

14 **PROTECT UTILITIES' ABILITY TO FULLY RECOVER THEIR COST OF SERVICE**

15 **DURING THE ECONOMIC DISTRESS CAUSED BY THE COVID-19 PANDEMIC?**

16 A   Yes. Regulatory commissions around the country, including the Texas Commission,

17 have implemented measures that prohibit utilities from disconnecting service for

18 customers that are not paying their bill. While this is an extraordinary measure, and

19 exposes utility companies to increases in uncollectible accounts expense, and waiver

20 of certain utility fees, commissions have also approved regulatory mechanisms that

21 allow utilities to defer uncollectible accounts. For instance, the Texas Commission has

1   authorized non-ERCOT utilities to record as a regulatory asset expenses resulting from

2   the effects of COVID-19.[3]

3   These regulatory mechanisms to protect customers' ability to receive essential

4   utility services were done in concert with the implementation of regulatory mechanisms

5   that preserved utilities' ability to recover their cost of service. Accordingly, commissions

6   have mitigated utilities' risks associated with the economic turmoil caused by the

7   COVID-19 pandemic considerably.

8   Q   **HAVE THE RECENT FEDERAL GOVERNMENT STIMULUS EFFORTS IMPACTED**

9   **CAPITAL MARKETS?**

10 A   Yes, the recent federal government efforts to stimulate the economy have impacted the

11 capital markets. However, this impact is relatively a short-term impact on economic

12 activity, and will impact short-term inflation outlooks. Long-term inflation outlooks are

13 not impacted by these near-term efforts to stimulate the economy. Common stock

14 valuations are impacted by long-term market outlooks, and are not significantly

15 changed by short-term stimulus efforts. The Federal Reserve's most recent projections

16 still include an long-term inflation outlook of about 2.0%, but project a short-term uptick

17 in inflation for 2021 to 2.4%.[4] Regardless, these government stimulus efforts have

18 been and are known to market participants, so they are reflected in the security

19 valuations and the estimated market cost of equity in my analysis.

---

[3] *Issues Related to the State of Disaster for the Coronavirus Disease 2019*, PUC Proj. No. 50664, Order Related to Accrual of Regulatory Assets (Mar. 26, 2020), *available at* https //interchange.puc texas gov/Documents/50664_108_1057674 PDF

[4]Federal Open Market Committee, FOMC Projections materials, accessible version, March 17, 2021

1 **I.D. Market Sentiments and Utility Industry Outlook**

2 **Q PLEASE DESCRIBE THE CREDIT RATING OUTLOOK FOR REGULATED**

3 **UTILITIES.**

4 A The global economy has faced the extraordinary challenges of the novel Coronavirus,

5 which led to nearly a complete shutdown of the global economy. This unprecedented

6 event has impacted all sectors and capital markets. With regard to regulated utilities,

7 S&P made the following statement:

8 **Key Takeaways**

9 - Credit quality for the North American regulated utility industry
10 weakened in 2020. At the beginning of the year about 18% of the
11 industry had a negative outlook or ratings on CreditWatch with negative
12 implications. By the end of the year that percentage had doubled, to
13 about 36%.

14 - For the first time in a decade downgrades outpaced upgrades for the
15 predominately investment-grade industry.

16 - The industry generally performed well throughout the pandemic and
17 we expect it will continue to mostly manage through the remaining
18 COVID-19-related risks.

19 - The main causes of weakening credit quality reflected environment,
20 social, and governance (ESG) risks, regulatory issues, and companies'
21 practice of strategically managing financial measures close to their
22 downgrade threshold with little or no cushion.

23 - Despite our negative 2021 industry outlook, we expect a modest
24 improvement to credit quality over the next 12 months. We believe
25 Congress is more likely to raise the corporate tax rate, which would
26 improve the industry's financial measures, offset in part by a continued
27 focus on ESG risks.

28 *   *   *

29 **COVID-19 Was Not The Culprit For Weaker Credit Quality**

30 In March 2020, we identified five COVID-19-related risks that could lead
31 to a weakening of the industry's credit quality.

32 *   *   *

33 Encouragingly, the industry has generally performed well throughout the
34 pandemic. Lower electric and gas deliveries to C&I customers were

1   mostly offset by higher residential deliveries, the industry generally
2   worked well with regulators to defer COVID-19-related costs for future
3   recovery, market returns improved, and <u>the industry generally had</u>
4   <u>consistent access to the capital markets.</u>[5]

5   Moody's opines that there may be delays in rate case decisions due to

6   COVID-19, but views regulated utilities as resilient to withstand the current economic

7   situation. Specifically, Moody's states:

8   We are maintaining a <u>stable outlook</u> for the US regulated utilities
9   industry, reflecting our expectation for continued strong regulatory
10 support, robust residential demand and a recovering economy in 2021.
11 As a critical infrastructure sector with a regulated business model that
12 provides good cost recovery, regulated utilities have remained relatively
13 resilient in the face of the uncertain economic environment caused by
14 the coronavirus pandemic.

15 **» Following a decline in 2020 from last year's level, FFO-to-debt will**
16 **increase slightly on improving economic conditions.** We project an
17 aggregate industry funds from operations to debt ratio of around 15%
18 over the next 12 to 18 months, a slight improvement from an expected
19 decline to between 14% and 15% in 2020 from 15.8% in 2019. Our
20 expectation considers Moody's global macro outlook forecast of a 4.5%
21 growth in US GDP in 2021, although this will be closely tied to the
22 containment of the coronavirus. We expect continued strength in
23 residential demand, improving commercial and industrial load and
24 disciplined O&M cost management to maintain financial stability.
25 However, greater than usual use of debt financing will constrain FFO-
26 to-debt.

27 **» Regulatory support to remain strong, although ROEs will be**
28 **under pressure.** We expect continued supportive regulatory
29 frameworks to underpin the sector's ability to recover costs in a timely
30 manner and earn a fair return even as allowed returns on equity (ROEs)
31 remain under pressure amid low interest rates. We expect most
32 regulators to be supportive of the recovery of coronavirus-related costs
33 and investments, as well as costs associated with the increasing
34 frequency and severity of climate hazards.[6]

---

[5]*S&P Global Ratings.* "North American Regulated Utilities' Negative Outlook Could See Modest Improvement," January 20, 2021, at 1 and 3. (emphasis added).

[6]*Moody's Investors Service Sector Comment:* "2021 Outlook Stable On Strong Regulatory Support and Robust Residential Demand," October 29, 2020 (emphasis added).

1 Q **HOW IS THIS OBSERVABLE MARKET DATA USED IN FORMING YOUR**

2 **RECOMMENDED RETURN ON EQUITY AND OVERALL RATE OF RETURN FOR**

3 **SWEPCO?**

4 A Generally, authorized returns on equity, credit standing, and access to capital have

5 been quite robust for utilities over the last several years. The COVID-19 pandemic has

6 created challenges for the U.S. economy as a whole, including utility companies.

7 However, like the U.S. economy, utilities are expected to weather the economic

8 downturn caused by the pandemic, and their financial strength will be restored as the

9 economy recovers. In the meantime, it is critical that the Commission ensure that rates

10 are increased no more than necessary to provide fair compensation and maintain

11 financial integrity, and be especially concerned about rate impacts on the service area

12 economies that are severely constrained due to current economic conditions.

13 **I.E. SWEPCO Investment Risk**

14 Q **PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF SWEPCO'S INVESTMENT**

15 **RISK.**

16 A The market's assessment of SWEPCO's investment risk is described by credit rating

17 analysts' reports. SWEPCO witness Ms. Renee Hawkins testified that SWEPCO's

18 current credit ratings from S&P and Moody's are A-, and Baa2, respectively.

19 SWEPCO's credit ratings have remain unchanged since its last rate case in Docket No.

20 46449. The Company has a stable outlook from both agencies.[7]

21 Specifically, S&P states:

22 **Outlook: Stable**

23 The stable rating outlook on SWEPCO reflects our stable outlook on its
24 parent, American Electric Power Co. Inc. (AEP). The stable outlook on
25 AEP and its subsidiaries reflects our assessment of the company's

_____

[7] Hawkins Direct Testimony at 5.

1   improving business risk profile that now consists almost entirely of solid
2   regulated utility operations. We expect AEP to generate funds from
3   operations (FFO) to debt of 15%-16% through 2021 in our base case
4   scenario.

5   *   *   *

6   **Business Risk: Excellent**

7   Our assessment of SWEPCO's business risk profile reflects its <u>lower-</u>
8   <u>risk, vertically integrated electric utility operations</u>. SWEPCO operates
9   under generally <u>stable and mostly constructive regulatory frameworks in</u>
10   <u>Arkansas, Louisiana, and Texas that allow for the timely recover of</u>
11   <u>approved fuel costs and capital expenditures</u>.

12   *   *   *

13   **Financial Risk: Significant**

14   Under our base case scenario, we anticipate that SWEPCO's stand-
15   alone adjusted FFO to debt will be in the 13%-15% range over the next
16   few years as it benefits from recovery mechanisms and the timely
17   recovery of invested capital. Supplemental ratio FFO cash interest
18   coverage of 4.6x-4.9x bolsters our financial risk profile assessment. In
19   addition, <u>we believe ongoing discretionary cash flow deficits due to</u>
20   <u>capital expenditures and dividend payments will likely be at least partly</u>
21   <u>funded with debt.</u> We expect debt leverage to be elevated, with adjusted
22   debt to EBITDA in the mid- to high-5x area. SWEPCO benefits from
23   <u>various rate mechanisms that allow for the timely recovery of costs and</u>
24   <u>support more stable operating cash flow.</u> We expect the company will
25   continue to fund its investments in manner that preserves credit quality.

26   We assess SWEPCO's financial risk profile using our <u>medial volatility</u>
27   <u>financial benchmarks</u>, that reflect <u>lower risk regulated utility operations</u>
28   and effective management of regulatory risk. The benchmarks are more
29   relaxed than those we use for a typical corporate issuer.[8]

30 **I.F.   SWEPCO Proposed Capital Structure**

31 **Q   WHAT IS SWEPCO'S PROPOSED CAPITAL STRUCTURE?**

32 A   SWEPCO's proposed capital structure is sponsored by SWEPCO witness Renee V.

33   Hawkins and is shown in Table 4 below:

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[8]*Standard & Poor's RatingsDirect®:* "Southwestern Electric Power Co.," January 29, 2021 at 3-5, emphasis added.

TABLE 4

SWEPCO's Proposed Capital Structure

Description	Weight
Long-Term Debt	50.63%
Common Equity	49.37%
Total Regulatory Capital Structure	100.00%

Source: Hawkins Direct Testimony at 3 and Schedule K-1.

1   SWEPCO's proposed capital structure is based on actual capital balances as

2   of March 31, 2020.[9] The Company's common equity ratio of 49.37% is slightly higher

3   but reasonably consistent with its approved common equity ratio of 48.46% in its 2017

4   rate case.

5   **I.G. Embedded Cost of Debt**

6   **Q**   **WHAT EMBEDDED COST OF DEBT IS SWEPCO PROPOSING IN THIS**

7   **PROCEEDING?**

8   A   Ms. Hawkins proposes an embedded cost of debt of 4.18% in Schedule K-3.

9   **II. RETURN ON EQUITY**

10   **Q**   **PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON**

11   **EQUITY."**

12   A   A utility's cost of common equity is the expected return that investors require on an

13   investment in the utility. Investors expect to earn their required return from receiving

14   dividends and through stock price appreciation.

---

[9] Schedule K-1.

1   Q   **PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**

2   **UTILITY'S COST OF COMMON EQUITY.**

3   A   In general, determining a fair cost of common equity for a regulated utility has been

4   framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works

5   & Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed.

6   Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944). In these decisions, the

7   Supreme Court found that just compensation depends on many circumstances and

8   must be determined by fair and enlightened judgments based on relevant facts. The

9   Court found that a utility is entitled to such rates as were permitted to earn a return on

10   a property devoted to the convenience of the public that is generally consistent with the

11   same returns available in other investments of corresponding risk. The Court continued

12   that the utility has "no constitutional rights to profits" such as those realized or

13   anticipated in highly profitable enterprises or speculative ventures, and defined the

14   ratepayer/investor balance as follows:

15   The return should be reasonably sufficient to assure confidence in the
16   financial soundness of the utility and should be adequate, under efficient
17   and economical management, to maintain and support its credit and
18   enable it to raise the money necessary for the proper discharge of its
19   public duties.[10]

20   As such, a fair rate of return is based on the expectation that the utility costs

21   reflect efficient and economical management, and the return will support its credit

22   standing and access to capital, but the return will not be in excess of this level. From

23   these standards, rates to customers will be just and reasonable, and compensation to

24   the utility will be fair and support financial integrity and credit standing, under economic

25   management of the utility, and just and reasonable rates.

---

[10]Bluefield, 262 U.S. 679, 693 (1923).

1 Q   **PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE SWEPCO'S**

2   **COST OF COMMON EQUITY.**

3 A   I have used several models based on financial theory to estimate SWEPCO's cost of

4   common equity. These models are: (1) a constant growth Discounted Cash Flow

5   ("DCF") model using consensus analysts' growth rate projections; (2) a constant growth

6   DCF using sustainable growth rate estimates; (3) a multi-stage growth DCF model;

7   (4) a Risk Premium model; and (5) a Capital Asset Pricing Model ("CAPM"). I have

8   applied these models to a group of publicly traded utilities with investment risk similar

9   to SWEPCO.

10 **II.A. Risk Proxy Group**

11 Q   **PLEASE DESCRIBE HOW YOU IDENTIFIED A PROXY UTILITY GROUP THAT**

12   **COULD BE USED TO ESTIMATE SWEPCO'S CURRENT MARKET COST OF**

13   **EQUITY.**

14 A   I relied on the same proxy group developed by SWEPCO witness Mr. D'Ascendis with

15   one exception. I excluded PNM Resources ("PNMR") because on October 21, 2020,

16   the company announced that it is in the process of being acquired by Avangrid, Inc.[11]

17   PNMR and Avangrid no longer meet Mr. D'Ascendis' and my proxy group selection

18   criteria.

19 Q   **WHY IS IT APPROPRIATE TO EXCLUDE COMPANIES THAT ARE INVOLVED IN**

20   **MERGER AND ACQUISITION ("M&A") ACTIVITY FROM THE PROXY GROUP?**

21 A   M&A activity can distort the market factors used in DCF and risk premium studies. M&A

22   activity can have impacts on stock prices, growth outlooks, and relative volatility in

---

[11]Avangrid, Inc. is 81.5% owned by Iberdrola, S. A , a Spanish worldwide energy company.

1   historical stock prices if the market was anticipating the M&A activity prior to it actually

2   being announced. This distortion in the market data thus impacts the reliability of the

3   DCF and risk premium estimates for a company involved in M&A.

4   Moreover, companies generally enter into M&A in order to produce greater

5   shareholder value by combining companies. The enhanced shareholder value

6   normally could not be realized had the two companies not combined.

7   When companies announce a merger or acquisition, the public assesses the

8   proposed transaction and develops outlooks on the value of the two companies after

9   the combination based on expected synergies or other value-adds created by the M&A.

10   As a result, the stock value before the merger is completed may not reflect the

11   forward-looking earnings and dividend payments for the company absent the merger

12   or on a stand-alone basis. Therefore, an accurate DCF return estimate on companies

13   involved in M&A activities cannot be produced because their stock prices do not reflect

14   the stand-alone investment characteristics of the companies. Rather, the stock price

15   more likely reflects the shareholder enhancement produced by the proposed

16   transaction. For these reasons, it is appropriate to remove companies involved in M&A

17   activities from a proxy group used to estimate a fair return on equity for a utility.

18 Q   **PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS REASONABLY**

19   **COMPARABLE IN INVESTMENT RISK TO SWEPCO.**

20 A   My proxy group shown in Exhibit MPG-3, has an average credit rating from S&P of

21   BBB+, which is a notch lower than SWEPCO's credit rating from S&P of A-. The proxy

22   group has an average credit rating from Moody's of Baa1, which is a notch higher than

23   SWEPCO's credit rating from Moody's of Baa2.

1   My proxy group has an average common equity ratio of 46.4% from S&P and

2   49.1% (excluding short-term debt) from *Value Line* for 2019, which is comparable to

3   the Company's proposed common equity ratio of 49.4%.

4   Therefore, my proxy group has a comparable risk to SWEPCO and will

5   produced a fair return on equity that will balance the interest of all stakeholders.

6   **II.B. DCF Model**

7   **Q   PLEASE DESCRIBE THE DCF MODEL.**

8   A   The DCF model posits that a stock price is valued by summing the present value of

9   expected future cash flows discounted at the investor's required rate of return or cost

10   of capital. This model is expressed mathematically as follows:

11
12         $$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \ .\ .\ .\ . \ \frac{D_\infty}{(1+K)^\infty} \qquad \text{(Equation 1)}$$

13   P_0 = Current stock price
14   D = Dividends in periods 1 - ∞
15   K = Investor's required return

16   This model can be rearranged in order to estimate the discount rate or investor-

17   required return, known as "K." If it is reasonable to assume that earnings and dividends

18   will grow at a constant rate, then Equation 1 can be rearranged as follows:

19         $$K = D_1/P_0 + G \qquad\qquad\qquad \text{(Equation 2)}$$

20   K = Investor's required return
21   D_1 = Dividend in first year
22   P_0 = Current stock price
23   G = Expected constant dividend growth rate

24   Equation 2 is referred to as the annual "constant growth" DCF model.

25   **Q   PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.**

26   A   As shown in Equation 2 above, the DCF model requires a current stock price, expected

27   dividend, and expected growth rate in dividends.

1 Q **WHAT STOCK PRICE DID YOU USE IN YOUR CONSTANT GROWTH DCF**

2   **MODEL?**

3 A I relied on the average of the weekly high and low stock prices of the utilities in the

4   proxy group over a 13-week period ending on February 26, 2021. An average stock

5   price is less susceptible to market price variations than a price at a single point in time.

6   Therefore, an average stock price is less susceptible to aberrant market price

7   movements, which may not reflect the stock's long-term value.

8   A 13-week average stock price reflects a period that is still short enough to

9   contain data that reasonably reflects current market expectations, but the period is not

10   so short as to be susceptible to market price variations that may not reflect the stock's

11   long-term value. In my judgment, a 13-week average stock price is a reasonable

12   balance between the need to reflect current market expectations and the need to

13   capture sufficient data to smooth out aberrant market movements.

14 Q **WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?**

15 A I used the most recently paid quarterly dividend as reported in *Value Line*.[12] This

16   dividend was annualized (multiplied by 4) and adjusted for next year's growth to

17   produce the D_1 factor for use in Equation 2 above. In other words, I calculate D_1 by

18   multiplying the annualized dividend (D_0) by (1+G).

19 Q **WHAT DIVIDEND GROWTH RATES DID YOU USE IN YOUR CONSTANT GROWTH**

20   **DCF MODEL?**

21 A There are several methods that can be used to estimate the expected growth in

22   dividends. However, regardless of the method, to determine the market-required return

---

[12]*The Value Line Investment Survey*, December 11, 2020, January 22, and February 12, 2021.

1   on common equity, one must attempt to estimate investors' consensus about what the

2   dividend, or earnings growth rate, will be and not what an individual investor or analyst

3   may use to make individual investment decisions.

4   As predictors of future returns, securities analysts' growth estimates have been

5   shown to be more accurate than growth rates derived from historical data.[13] That is,

6   assuming the market generally makes rational investment decisions, analysts' growth

7   projections are more likely to influence investors' decisions, which are captured in

8   observable stock prices, than growth rates derived only from historical data.

9   For my constant growth DCF analysis, I have relied on a consensus, or mean,

10   of professional securities analysts' earnings growth estimates as a proxy for investor

11   consensus dividend growth rate expectations. I used the average of analysts' growth

12   rate estimates from three sources: Zacks, MI, and Yahoo! Finance. All such projections

13   were available on February 26, 2021, and all were reported online.

14   Each consensus growth rate projection is based on a survey of securities

15   analysts. There is no clear evidence whether a particular analyst is most influential on

16   general market investors. Therefore, a single analyst's projection does not as reliably

17   predict consensus investor outlooks as does a consensus of market analysts'

18   projections. The consensus estimate is a simple arithmetic average, or mean, of

19   surveyed analysts' earnings growth forecasts. A simple average of the growth

20   forecasts gives equal weight to all surveyed analysts' projections. Therefore, a simple

21   average, or arithmetic mean, of analyst forecasts is a good proxy for market consensus

22   expectations.

---

[13]*See, e.g.,* David Gordon, Myron Gordon & Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

1 Q WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH

2   DCF MODEL?

3 A The growth rates I used in my DCF analysis are shown in Exhibit MPG-4. The average

4   growth rate for my proxy group is 5.46%.

5 Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?

6 A As shown in Exhibit MPG-5, the average and median constant growth DCF returns for

7   my proxy group for the 13-week analysis are 9.43% and 9.35%, respectively.

8 Q DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT

9   GROWTH DCF ANALYSIS?

10 A Yes. The constant growth DCF analysis for my proxy group is based on an average

11   long-term sustainable growth rate of 5.46%. The three- to five-year growth rate is

12   higher than my estimate of a maximum long-term sustainable growth rate of 4.35%,

13   which I discuss later in this testimony.

14 Q HOW DID YOU ESTIMATE A MAXIMUM LONG-TERM SUSTAINABLE GROWTH

15   RATE?

16 A Although there may be short-term peaks, the long-term sustainable growth rate for a

17   utility stock cannot exceed the growth rate of the economy in which it sells its goods

18   and services. The long-term maximum sustainable growth rate for a utility investment

19   is, accordingly, best proxied by the projected long-term Gross Domestic Product

20   ("GDP") growth rate as that reflects the projected long-term growth rate of the economy

21   as a whole. *Blue Chip Financial Forecasts* projects that over the next 5 and 10 years,

22   the U.S. nominal GDP will grow at an annual rate of approximately 4.35%. These GDP

23   growth projections reflect a real growth outlook of around 2.25% and an inflation outlook

1   of around 2.10% going forward. As such, the average nominal growth rate over the

2   next 10 years is around 4.35%, which I believe is a reasonable proxy of long-term

3   sustainable growth.[14]

4   In my multi-stage growth DCF analysis, I discuss academic and investment

5   practitioner support for using the projected long-term GDP growth outlook as a

6   maximum sustainable growth rate projection. Using the long-term GDP growth rate,

7   however, as a conservative projection for the maximum sustainable growth rate is

8   logical, and is generally consistent with academic and economic practitioner accepted

9   practices.

10   **II.C. Sustainable Growth DCF**

11   **Q   PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM**

12   **GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.**

13   A   A sustainable growth rate is based on the percentage of the utility's earnings that is

14   retained and reinvested in utility plant and equipment. These reinvested earnings

15   increase the earnings base (rate base). Earnings grow when plant funded by

16   reinvested earnings is put into service, and the utility is allowed to earn its authorized

17   return on such additional rate base investment.

18   The internal growth methodology is tied to the percentage of earnings retained

19   in SWEPCO and not paid out as dividends. The earnings retention ratio is 1 minus the

20   dividend payout ratio. As the payout ratio declines, the earnings retention ratio

21   increases. An increased earnings retention ratio will fuel stronger growth because the

22   business funds more investments with retained earnings.

---

[14]*Blue Chip Financial Forecasts*, December 1, 2020, at 14.

1   The payout ratios of the proxy group are shown in my Exhibit MPG-6. These

2   dividend payout ratios and earnings retention ratios then can be used to develop a

3   sustainable long-term earnings retention growth rate. A sustainable long-term earnings

4   retention ratio will help gauge whether analysts' current three- to five-year growth rate

5   projections can be sustained over an indefinite period of time.

6   The data used to estimate the long-term sustainable growth rate is based on

7   SWEPCO's current market-to-book ratio and on *Value Line*'s three- to five-year

8   projections of earnings, dividends, earned returns on book equity, and stock issuances.

9   As shown in Exhibit MPG-7 the average sustainable growth rate using this

10   internal growth rate model is 4.50% for the proxy group.

11   Q   **WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM**

12   **GROWTH RATES?**

13   A   A DCF estimate based on these sustainable growth rates is developed in Exhibit

14   MPG-8. As shown there, the sustainable growth DCF analysis produces proxy group

15   average and median DCF results for the 13-week period of 8.44% and 8.45%,

16   respectively.

17   **II.D. Multi-Stage Growth DCF Model**

18   Q   **HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

19   A   Yes. My first constant growth DCF is based on consensus analysts' growth rate

20   projections so it is a reasonable reflection of rational investment expectations over the

21   next three to five years. The limitation on this constant growth DCF model is that it

22   cannot reflect a rational expectation that a period of high or low short-term growth can

23   be followed by a change in growth to a rate that better reflects long-term sustainable

1   growth. Therefore, I performed a multi-stage growth DCF analysis to reflect this outlook

2   of changing growth expectations.

3   Q   **WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?**

4   A   Analyst-projected growth rates over the next three to five years will change as utility

5   earnings growth outlooks change. Utility companies go through cycles in making

6   investments in their systems. When utility companies are making large investments,

7   their rate base grows rapidly, which in turn accelerates earnings growth. Once a major

8   construction cycle is completed or levels off, growth in the utility rate base slows and

9   its earnings growth slows from an abnormally high three- to five-year rate to a lower

10   sustainable growth rate.

11   As major construction cycles extend over longer periods of time, even with an

12   accelerated construction program, the growth rate of the utility will slow simply because

13   the pace of rate base growth will slow and because the utility has limited human and

14   capital resources available to expand its construction program. Therefore, the three-

15   to five-year growth rate projection should only be used as a long-term sustainable

16   growth rate in concert with a reasonable, informed judgment as to whether it considers

17   the current market environment, the industry, and whether the three- to five-year growth

18   outlook is sustainable.

19 Q   **PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.**

20 A   The multi-stage growth DCF model reflects the possibility of non-constant growth for a

21   company over time. The multi-stage growth DCF model reflects three growth periods:

22   (1) a short-term growth period consisting of the first five years; (2) a transition period,

23   consisting of the next five years (6 through 10); and (3) a long-term growth period

24   starting in year 11 through perpetuity.

1   For the short-term growth period, I relied on the consensus analysts' growth

2   projections I used above in my constant growth DCF model. For the transition period,

3   the growth rates were reduced or increased by an equal factor reflecting the difference

4   between the analysts' growth rates and the long-term sustainable growth rate. For the

5   long-term growth period, I assumed each company's growth would converge to the

6   maximum sustainable long-term growth rate, which is the projected long-term GDP

7   growth rate.

8 **Q**   **WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE**

9   **MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?**

10 **A**   Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the

11   economy in which they sell services. Utilities' earnings/dividend growth are created by

12   increased utility investment or rate base. Such investment, in turn, is driven by service

13   area economic growth and demand for utility service. In other words, utilities invest in

14   plant to meet sales demand growth. Sales growth, in turn, is tied to economic growth

15   in their service areas.

16   The U.S. Department of Energy, Energy Information Administration ("EIA") has

17   observed utility sales growth tracks U.S. GDP growth, albeit at a lower level, as shown

18   in Exhibit MPG-9. Utility sales growth has lagged behind GDP growth for more than a

19   decade. As a result, nominal GDP growth is a very conservative proxy for utility sales

20   growth, rate base growth, and earnings growth. Therefore, the U.S. GDP nominal

21   growth rate is a reasonable proxy for the highest sustainable long-term growth rate of

22   a utility.

1 Q **IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE**

2 **LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT A**

3 **RATE GREATER THAN THE GROWTH OF THE U.S. GDP?**

4 A Yes. This concept is supported in published analyst literature and academic work.

5 Specifically, in "Fundamentals of Financial Management," a textbook published by

6 Eugene Brigham and Joel F. Houston, the authors state:

7 The constant growth model is most appropriate for mature companies
8 with a stable history of growth and stable future expectations. Expected
9 growth rates vary somewhat among companies, but <u>dividends for</u>
10 <u>mature firms are often expected to grow in the future at about the same</u>
11 <u>rate as nominal gross domestic product (real GDP plus inflation).</u>[15]

12 The use of the economic growth rate is also supported by investment

13 practitioners as outlined as follows:

14 **Estimating Growth Rates**

15 One of the advantages of a three-stage discounted cash flow model is
16 that it fits with life cycle theories in regards to company growth. In these
17 theories, companies are assumed to have a life cycle with varying
18 growth characteristics. Typically, the potential for extraordinary growth
19 in the near term eases over time and eventually growth slows to a more
20 stable level.

21 *   *   *

22 Another approach to estimating long-term growth rates is to focus on
23 estimating the overall economic growth rate. Again, this is the approach
24 used in the *Ibbotson Cost of Capital Yearbook.* To obtain the economic
25 growth rate, a forecast is made of the growth rate's component parts.
26 Expected growth can be broken into two main parts: expected inflation
27 and expected real growth. By analyzing these components separately,
28 it is easier to see the factors that drive growth.[16]

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[15]*"Fundamentals of Financial Management,"* Eugene F. Brigham & Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298, emphasis added.
[16]*Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook* at 51 and 52.

1   **Q**   **ARE THERE ACTUAL INVESTMENT RESULTS THAT SUPPORT THE THEORY**

2   **THAT THE GROWTH ON STOCK INVESTMENTS WILL NOT EXCEED THE**

3   **NOMINAL GROWTH OF THE U.S. GDP?**

4   **A**   Yes. This is evident by a comparison of the compound annual growth of the U.S. GDP

5   to the geometric growth of the U.S. stock market. Morningstar measures the historical

6   geometric growth of the U.S. stock market over the period 1926-2019 to be

7   approximately 6.1%.[17] During this same time period, the U.S. nominal compound

8   annual growth of the U.S. GDP was approximately 6.0%.[18]

9   As such, over the past 90 years, the geometric average growth of the U.S.

10   nominal GDP has been slightly higher than, but comparable to, the geometric average

11   growth of the U.S. stock market capital appreciation. This historical relationship

12   indicates that the U.S. GDP growth outlook is a reasonable estimate of the long-term

13   sustainable growth of U.S. stock investments.

14 **Q**   **WHAT IS THE GEOMETRIC AVERAGE AND WHY IS IT APPROPRIATE TO USE**

15   **THIS MEASURE TO COMPARE GDP GROWTH TO CAPITAL APPRECIATION IN**

16   **THE STOCK MARKET?**

17 **A**   The terms geometric average growth rate and compound annual growth rate are used

18   interchangeably. The geometric annual growth rate is the calculated growth rate, or

19   return, that measures the magnitude of growth from start to finish. The geometric

20   average is best, and most often, used as a measurement of performance or growth

21   over a long period of time.[19] Because I am comparing achieved growth in the stock

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[17]*Duff & Phelps, 2020 SBBI Yearbook* at 6-17.
[18]U.S. Bureau of Economic Analysis, January 28, 2021.
[19]*New Regulatory Finance*, Roger Morin, PhD, at 133-134.

1   market to achieved growth in U.S. GDP over a long period of time, the geometric

2   average growth rate is most appropriate.

3   **Q**   **HOW DID YOU DETERMINE A LONG-TERM GROWTH RATE THAT REFLECTS**

4   **THE CURRENT CONSENSUS MARKET PARTICIPANT OUTLOOK?**

5   **A**   I relied on the economic consensus of long-term GDP growth projections. *Blue Chip*

6   *Financial Forecasts* publishes the consensus for GDP growth projections twice a year.

7   These consensus GDP growth outlooks are the best available measure of the market's

8   assessment of long-term GDP growth because the analysts' projections reflect all

9   current outlooks for GDP. They are therefore likely the most influential on investors'

10   expectations of future growth outlooks. The consensus projections published GDP

11   growth rate outlook is 4.35% over the next 10 years.[20]

12   I propose to use the consensus for projected five- and ten-year average GDP

13   growth rates of 4.35%, as published by *Blue Chip Financial Forecasts*, as an estimate

14   of long-term sustainable growth. *Blue Chip Financial Forecasts* projections provide

15   real GDP growth projections of approximately 2.25% and inflation of 2.10%[21] over the

16   five-year and ten-year projection periods, resulting in nominal GDP growth projections

17   of 4.35%. These GDP growth forecasts represent the most likely views of market

18   participants because they are based on published economic consensus projections.

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[20]*Blue Chip Financial Forecasts*, December 1, 2020, at 14.
[21]*Id.*

1 Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP

2 GROWTH?

3 A Yes, and these alternative sources corroborate the consensus analysts' projections I

4 relied on. Various commonly relied upon analysts' projections are shown in Table 5

5 below.

TABLE 5				
GDP Forecasts				
Source	Term	Real GDP	Inflation	Nominal GDP
Blue Chip Financial Forecasts	5-10 Yrs	2.3%	2.1%	4.3%
EIA - Annual Energy Outlook	30 Yrs	1.8%	2.2%	4.1%
Congressional Budget Office	9 Yrs	1.8%	2.0%	3.8%
Moody's Analytics	30 Yrs	2.2%	1.8%	4.1%
Social Security Administration	74 Yrs			4.1%
The Economist Intelligence Unit	24 Yrs	1.8%	2.0%	3.9%

6 The EIA in its *Annual Energy Outlook* projects real GDP out until 2050. In its

7 2020 Annual Report, the EIA projects real GDP through 2050 to be 1.8% and a

8 long-term GDP price inflation projection of 2.2%. The EIA data supports a long-term

9 nominal GDP growth outlook of 4.1%.[22]

10 Also, the Congressional Budget Office ("CBO") makes long-term economic

11 projections. The CBO is projecting real GDP growth to be 1.8% during the next

12 nine years, with a GDP price inflation outlook of 2.0%. The CBO's nine-year outlook

13 for nominal GDP based on this projection is 3.8%.[23]

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[22]DOE/EIA Annual Energy Outlook 2020 With Projections to 2050, March 2020, Table Macroeconomic Indicators

[23]*CBO: An Update to the Economic Outlook: 2020 to 2030*, July 2020.

1   Moody's Analytics also makes long-term economic projections. In its recent

2   over 25-year outlook to 2048, Moody's Analytics is projecting real GDP growth of 2.2%

3   with GDP inflation of 1.8%.[24]   Based on these projections, Moody's Analytics is

4   projecting nominal GDP growth of 4.1% over the next 25 years.

5   The Social Security Administration ("SSA") makes long-term economic

6   projections out to 2095. The SSA's nominal GDP projection, under its "intermediate

7   cost" scenario of approximately 50 years, is 4.1%.[25]

8   The Economist Intelligence Unit, a division of The Economist and a third-party

9   data provider to MI, makes a long-term economic projection out to 2050.   The

10   Economist Intelligence Unit is projecting real GDP growth of 1.8% with an inflation rate

11   of 2.0% out to 2050. The real GDP growth projection is in line with the consensus. The

12   long-term nominal GDP projection based on these outlooks is approximately 3.9%.[26]

13   The real GDP and nominal GDP growth projections made by these independent

14   sources support my use of 4.35% as a reasonable estimate of market participants'

15   expectations for long-term GDP growth.

16   **Q   WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU USE IN YOUR**

17   **MULTI-STAGE GROWTH DCF ANALYSIS?**

18   A   I relied on the same 13-week average stock prices and the most recent quarterly

19   dividend payment data discussed above. For stage one growth, I used the consensus

20   analysts' growth rate projections discussed above in my constant growth DCF model.

21   The first stage covers the first five years, consistent with the time horizon of the

22   securities analysts' growth rate projections. The second stage, or transition stage,

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[24]www.economy com, *Moody's Analytics Forecast,* May 11, 2020.
[25]www.ssa gov, "2020 OASDI Trustees Report," Table VI.G4, April 22, 2020.
[26]*S&P Global Market Intelligence, Economist Intelligence Unit,* downloaded on January 28, 2021.

1   begins in year 6 and extends through year 10. The second stage growth transitions

2   the growth rate from the first stage to the third stage using a straight linear trend. For

3   the third stage, or long-term sustainable growth stage, starting in year 11, I used a

4   4.35% long-term sustainable growth rate based on the consensus economists' long-

5   term projected nominal GDP growth rate.

6   Q   **WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?**

7   A   As shown in Exhibit MPG-10, the average and median DCF returns on equity for my

8   proxy group using the 13-week average stock price are 8.56% and 8.72%, respectively.

9   Q   **PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

10   A   The results from my DCF analyses are summarized in Table 6 below:

TABLE 6

Summary of DCF Results

Description	Median
Constant Growth DCF Model (Analysts' Growth)	9.35%
Constant Growth DCF Model (Sustainable Growth)	8.45%
Multi-Stage Growth DCF Model	8.72%

11   I conclude that my DCF studies support a return on equity of 8.90%, generally

12   falling in the range of 8.45% to 9.35%. The low-end of the range aligns with the

13   sustainable growth methodology result of 8.45% and the high-end of the range reflects

14   the constant growth DCF result of 9.35%. The midpoint of this range of 8.90%, which

15   is slightly higher than the result of my multi-stage growth DCF model result of 8.72%.

1 **II.E. Risk Premium Model**

2 **Q** **PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

3 A This model is based on the principle that investors require a higher return to assume

4 greater risk. Common equity investments have greater risk than bonds because bonds

5 have more security of payment in bankruptcy proceedings than common equity and the

6 coupon payments on bonds represent contractual obligations. In contrast, companies

7 are not required to pay dividends or guarantee returns on common equity investments.

8 Therefore, common equity securities are considered to be riskier than bond securities.

9 This risk premium model is based on two estimates of an equity risk premium.

10 First, I quantify the difference between regulatory commission-authorized returns on

11 common equity and contemporary U.S. Treasury bonds. The difference between the

12 authorized return on common equity and the Treasury bond yield is the risk premium.

13 I estimated the risk premium on an annual basis for each year from 1986 through 2020.

14 The authorized returns on equity were based on regulatory commission-authorized

15 returns for utility companies. Authorized returns are typically based on expert

16 witnesses' estimates of the investor-required return at the time of the proceeding.

17 The second equity risk premium estimate is based on the difference between

18 regulatory commission-authorized returns on common equity and contemporary

19 "A" rated utility bond yields by Moody's. I selected the period 1986 through 2020

20 because public utility stocks consistently traded at a premium to book value during that

21 period. This is illustrated in Exhibit MPG-11, which shows the market-to-book ratio

22 since 1986 for the electric utility industry was consistently above a multiple of 1.0x.

23 Over this period, an analyst can infer that authorized returns on equity were sufficient

24 to support market prices that at least exceeded book value. This is an indication that

25 commission authorized returns on common equity supported a utility's ability to issue

26 additional common stock without diluting existing shares. It further demonstrates

BRUBAKER & ASSOCIATES, INC.

1   utilities were able to access equity markets without a detrimental impact on current

2   shareholders.

3   Based on this analysis, as shown in Exhibit MPG-12, the average indicated

4   equity risk premium over U.S. Treasury bond yields has been 5.65%. Since the risk

5   premium can vary depending upon market conditions and changing investor risk

6   perceptions, I believe using an estimated range of risk premiums provides the best

7   method to measure the current return on common equity for a risk premium

8   methodology.

9   I incorporated five-year and ten-year rolling average risk premiums over the

10   study period to gauge the variability over time of risk premiums. These rolling average

11   risk premiums mitigate the impact of anomalous market conditions and skewed risk

12   premiums over an entire business cycle. As shown on my Exhibit MPG-12, the five-

13   year rolling average risk premium over Treasury bonds ranged from 4.25% to 7.02%,

14   while the ten-year rolling average risk premium ranged from 4.38% to 6.80%.

15   As shown on my Exhibit MPG-13, the average indicated equity risk premium

16   over contemporary "A" rated Moody's utility bond yields was 4.28%. The five-year and

17   ten-year rolling average risk premiums ranged from 2.88% to 5.77% and 3.20% to

18   5.62%, respectively.

19 **Q**   **DO YOU BELIEVE THAT THE TIME PERIOD USED TO DERIVE THESE EQUITY**

20   **RISK PREMIUM ESTIMATES IS APPROPRIATE TO FORM ACCURATE**

21   **CONCLUSIONS ABOUT CONTEMPORARY MARKET CONDITIONS?**

22 **A**   Yes. Contemporary market conditions can change during the period that rates

23   determined in this proceeding will be in effect. A relatively long period of time where

24   stock valuations reflect premiums to book value indicates that the authorized returns

25   on equity and the corresponding equity risk premiums were supportive of investors'

1   return expectations and provided utilities access to the equity markets under

2   reasonable terms and conditions. Further, this time period is long enough to smooth

3   abnormal market movement that might distort equity risk premiums. While market

4   conditions and risk premiums do vary over time, this historical time period is a

5   reasonable period to estimate contemporary risk premiums.

6   Alternatively, some studies, such as Duff & Phelps, have recommended that

7   the use of "actual achieved investment return data" in a risk premium study should be

8   based on long historical time periods. The studies find that achieved returns over short

9   time periods may not reflect investors' expected returns due to unexpected and

10   abnormal stock price performance. Short-term, abnormal actual returns would be

11   smoothed over time and the achieved actual investment returns over long time periods

12   would approximate investors' expected returns. Therefore, it is reasonable to assume

13   that averages of annual achieved returns over long time periods will generally converge

14   on the investors' expected returns.

15   My risk premium study is based on data that inherently relied on investor

16   expectations, not actual investment returns, and, thus, need not encompass a very long

17   historical time period.

18 **Q** **WHAT DOES CURRENT OBSERVABLE MARKET DATA SUGGEST ABOUT**

19   **INVESTOR PERCEPTIONS OF UTILITY INVESTMENTS?**

20 **A** The equity risk premium should reflect the relative market perception of risk today in

21   the utility industry. I have gauged investor perceptions in utility risk today in Exhibit

22   MPG-14, where I show the yield spread between utility bonds and Treasury bonds over

23   the last 40 years. As shown in this exhibit, the average utility bond yield spreads over

24   Treasury bonds for "A" and "Baa" rated utility bonds for this historical period are 1.49%

25   and 1.93%, respectively. The utility bond yield spreads over Treasury bonds for "A"

1   and "Baa" rated utilities for 2018 were 1.14% and 1.56%, respectively. The utility bond

2   yield spreads over Treasury bonds for "A" and "Baa" rated utilities for 2019 were 1.18%

3   and 1.61%, respectively. Most recently in 2020, the "A" and "Baa" utility spreads are

4   1.49% and 1.87%, respectively. Both the current average "A" rated and "Baa" rated

5   utility bond yield spreads over Treasury bond yields are lower or comparable to the

6   respective 40-year average spreads.

7   The current 13-week average "A" rated utility bond yield of 2.93% when

8   compared to the current Treasury bond yield of 1.85%, as shown in Exhibit MPG-15,

9   implies a yield spread of 1.08%. This current utility bond yield spread is significantly

10   lower than the 40-year average spread for "A" rated utility bonds of 1.49%. The current

11   spread for the "Baa" rated utility bond yield of 1.36% is also lower than the 40-year

12   average spread of 1.93%.

13 **Q**   **IS THERE OBSERVABLE MARKET EVIDENCE TO HELP GAUGE MARKET RISK**

14   **PREMIUMS?**

15 A   Yes. Market data illustrates how the market is pricing investment risk, and gauging the

16   current demands for returns based on securities of varying levels of investment risk.

17   This market evidence includes bond yield spreads for different bond return ratings as

18   implied by the yield spreads for Treasury, corporate and utility bonds. These spreads

19   provide an indication of the market's return requirement for securities of different levels

20   of investment risk and required risk premiums.

21   Table 7 below summarizes the utility and corporate bond spreads relative to

22   Treasury bond yields.

TABLE 7

Comparison of Yield Spreads Over Treasury Bonds

Description	Utility		Corporate	
	A	Baa	Aaa	Baa
Average Historical Spread	1.49%	1.93%	0.84%	1.93%
2018 Spread	1.14%	1.56%	0.82%	1.69%
2019 Spread	1.18%	1.61%	0.81%	1.79%
2020 Spread	1.49%	1.87%	0.96%	2.10%
2021 Spread*	1.07%	1.35%	1.00%	1.40%

Source: Moody's Bond Yields
*2021 data through 2/26/2021

1   As shown above in Table 7, the average historical utility bond yield spread is

2 greater than the current yield spread based on 2018-2020 data. This is an indication

3 that the market is placing a higher value on utility securities currently, and indicating a

4 preference for lower-risk investment securities. This phenomenon is also evident in

5 spreads for general corporate securities. An Aaa-rated corporate bond 40-year

6 average spread is 0.84%, which is slightly higher than the 2018 and 2019 spreads of

7 0.82% and 0.81%, respectively. In 2020, the Aaa and Baa corporate spreads are

8 higher but comparable to the 40-year average corporate spreads. For higher-risk

9 bonds, utility Baa and corporate bonds reflect reasonably consistent yield spreads,

10 suggesting that these higher-risk utility and corporate bond securities are not receiving

11 the same premium valuation as are the lower-risk A-rated and Aaa-rated utility and

12 corporate bond securities.

13   A relatively low yield for utility and corporate bonds is also reflected in outlooks

14 of real returns on these bond yields compared to the past. Over the period 1926-2019,

15 long-term corporate bond yields have earned around 6.1%, compared to inflation of

1   around 2.9%.[27] This implies a historical real return on long-term corporate bonds of

2   around 2.9%. In 2018-2020, long-term corporate bonds rated Aaa averaged around

3   3.30%. At that time, future inflation outlooks over the long term were expected to be

4   around 2.0% which implies a current real return outlook on long-term corporate bonds

5   of only 1.30%. Again, the lower current yield in comparison to historical yields indicates

6   that bond yields are being priced at a premium by market participants.

7   This information supports the finding that higher-risk securities are being valued

8   to produce higher-risk spreads relative to low-risk securities in the current marketplace.

9   As such, I believe this information supports that using an above-average risk premium

10   in the current marketplace accurately estimates the market's required return for an

11   investment in a higher-risk security (common stock) compared to a lower-risk security

12   (utility and Treasury bond yields). For these reasons, I believe an above-average risk

13   premium is supported by observable market evidence.

14   **Q**   **WHAT IS YOUR RECOMMENDED RETURN FOR SWEPCO BASED ON YOUR**

15   **RISK PREMIUM STUDY?**

16   **A**   I am recommending more weight be given to the high-end risk premium estimates than

17   the low-end. As outlined above, I believe the current market is reflecting high premiums

18   for investing in securities of greater levels of investment risk. Based on this

19   observation, I propose to be conservative in applying a risk premium analysis. For

20   these reasons, I will recommend my high-end equity risk premium in forming a return

21   on equity in this proceeding.

22   For Treasury bond yields, I believe a risk premium of approximately 7.02%, the

23   high-end of five-year rolling averages, reflects the current very low outlook for Treasury

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[27]*Duff & Phelps 2020 SBBI Yearbook* at 6-17

1   bond yields and current observable yield spreads. Using a Treasury bond risk premium

2   of 7.02% and a projected Treasury bond yield of 2.40% produces an indicated equity

3   risk premium of 9.42% (7.02% + 2.40%), rounded to 9.40%. Similarly, using an equity

4   risk premium of 5.77%, also the high-end of five-year rolling averages, over a utility

5   bond yield of 3.21% indicates a risk premium return of 8.98% (5.77% + 3.21%),

6   rounded to 9.00%.

7   Based on this methodology, my Treasury bond risk premium and my utility bond

8   risk premium indicate a return in the range of 9.00% to 9.40%, with a midpoint of 9.20%.

9   **II.F. Capital Asset Pricing Model ("CAPM")**

10   **Q   PLEASE DESCRIBE THE CAPM.**

11   A   The CAPM method of analysis is based upon the theory that the market-required rate

12   of return for a security is equal to the risk-free rate, plus a risk premium associated with

13   the specific security. This relationship between risk and return can be expressed

14   mathematically as follows:

15   $$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

16   R_i =   Required return for stock i
17   R_f =   Risk-free rate
18   R_m =   Expected return for the market portfolio
19   B_i =   Beta - Measure of the risk for stock

20   The stock-specific risk term in the above equation is beta. Beta represents the

21   investment risk that cannot be diversified away when the security is held in a diversified

22   portfolio. When stocks are held in a diversified portfolio, stock-specific risks can be

23   eliminated by balancing the portfolio with securities that react in the opposite direction

24   to firm-specific risk factors (e.g., business cycle, competition, product mix, and

25   production limitations).

1   Risks that cannot be eliminated when held in a diversified portfolio are

2   non-diversifiable risks. Non-diversifiable risks are related to the market and referred to

3   as systematic risks. Risks that can be eliminated by diversification are non-systematic

4   risks. In a broad sense, systematic risks are market risks and non-systematic risks are

5   business risks. The CAPM theory suggests the market will not compensate investors

6   for assuming risks that can be diversified away. Therefore, the only risk investors will

7   be compensated for are systematic, or non-diversifiable, risks. The beta is a measure

8   of the systematic, or non-diversifiable risks.

9   Q   **PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

10   A   The CAPM requires an estimate of the market risk-free rate, SWEPCO's beta, and the

11   market risk premium.

12   Q   **WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?**

13   A   As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond

14   yield is 2.40%.[28] The current 30-year Treasury bond yield is 1.85%, as shown in Exhibit

15   MPG-15. I used *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield

16   of 2.40% for my CAPM analysis.

17   Q   **WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE**

18   **OF THE RISK-FREE RATE?**

19   A   Treasury securities are backed by the full faith and credit of the United States

20   government. Therefore, long-term Treasury bonds are considered to have negligible

21   credit risk. Also, long-term Treasury bonds have an investment horizon similar to that

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[28]*Blue Chip Financial Forecasts*, March 1, 2021 at 2.

1   of common stock. As a result, investor-anticipated long-run inflation expectations are

2   reflected in both common stock required returns and long-term bond yields. Therefore,

3   the nominal risk-free rate (or expected inflation rate and real risk-free rate) included in

4   a long-term bond yield is a reasonable estimate of the nominal risk-free rate included

5   in common stock returns.

6   Treasury bond yields, however, do include risk premiums related to

7   unanticipated future inflation and interest rates. In this regard, a Treasury bond yield

8   is not a risk-free rate. Risk premiums related to unanticipated inflation and interest

9   rates reflect systematic market risks. Consequently, for companies with betas less than

10   1.0, using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis

11   can produce an overstated estimate of the CAPM return.

12   **Q**   **WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

13   A   As shown on my Exhibit MPG-16, page 1, the average beta of my proxy group is 0.89.

14   This means that my proxy group is less risky than the market as a whole. I also

15   reviewed the long-term trend of *Value Line* betas reported for the proxy group

16   companies. As shown on Exhibit MPG-16, page 2, the proxy group's betas have

17   generally ranged between 0.60 and 0.80, or an average of approximately 0.70. Thus,

18   the current beta estimates of around 0.89 are above the high-end of the historical

19   range. As outlined below, I will consider both current published betas as well as

20   normalized historical beta estimates in deriving a CAPM return estimate that reflects

21   the current market cost of equity, and the likely cost of equity when rates determined

22   in this proceeding are in effect.

1 Q **HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?**

2 A I derived two market risk premium estimates: a forward-looking estimate and one based

3 on a long-term historical average.

4 The forward-looking estimate was derived by estimating the expected return on

5 the market (as represented by the S&P 500) and subtracting the risk-free rate from this

6 estimate. I estimated the expected return on the S&P 500 by adding an expected

7 inflation rate to the long-term historical arithmetic average real return on the market.

8 The real return on the market represents the achieved return above the rate of inflation.

9 Duff & Phelps' *2020 SBBI Yearbook* estimates the historical arithmetic average

10 real market return over the period 1926 to 2019 to be 9.0%.[29] A current consensus for

11 projected inflation, as measured by the Consumer Price Index, is 2.1%.[30] Using these

12 estimates, the expected market return is 11.29%.[31] The market risk premium then is

13 the difference between the 11.29% expected market return and my 2.40% risk-free rate

14 estimate, or 8.89%, rounded to 8.90%, which I referred to as a normalized market risk

15 premium.

16 I also developed a current market risk premium based on the difference

17 between the expected return on the market of 11.29% as described above and the

18 current 30-year Treasury yield of 1.85% as shown on my Exhibit MPG-15, which

19 produced a current market risk premium of 9.44%.

20 A historical estimate of the market risk premium was also calculated by using

21 data provided by Duff & Phelps in its *2020 SBBI Yearbook*. Over the period 1926

22 through 2019, the Duff & Phelps study estimated that the arithmetic average of the

23 achieved total return on the S&P 500 was 12.1%[32] and the total return on long-term

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[29]Duff & Phelps, *2020 SBBI Yearbook at 6-18.*
[30]*Blue Chip Financial Forecasts*, February 1, 2021 at 2.
[31]$\{ (1 + 0.090) * (1 + 0.021) - 1 \} * 100.$
[32]*Duff & Phelps 2020 Yearbook* at 6-17.

1   Treasury bonds was 6.0%.[33] The indicated market risk premium is 6.1% (12.1% - 6.0%

2   = 6.1%).

3   The long-term government bond yield of 6.0% occurred during a period of

4   inflation of approximately 2.9%, thus implying a real return on long-term government

5   bonds of 3.1%.

6 **Q** **HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO**

7   **THAT ESTIMATED BY DUFF & PHELPS?**

8 A   Duff & Phelps makes several estimates of a forward-looking market risk premium based

9   on actual achieved data from the historical period of 1926 through 2019 as well as

10   normalized data. Using this data, Duff & Phelps estimates a market risk premium

11   derived from the total return on the securities that comprise the S&P 500, less the

12   income return on Treasury bonds. The total return includes capital appreciation,

13   dividend or coupon reinvestment returns, and annual yields received from coupons

14   and/or dividend payments. The income return, in contrast, only reflects the income

15   return received from dividend payments or coupon yields.

16   Duff & Phelps' range is based on several methodologies. First, Duff & Phelps

17   estimates a market risk premium of 7.15% based on the difference between the total

18   market return on common stocks (S&P 500) less the income return on 20-year Treasury

19   bond investments over the 1926-2019 period.[34]

20   Second, Duff & Phelps used the Ibbotson & Chen supply-side model which

21   produced a market risk premium estimate of 6.17%.[35]

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[33]*Id.*
[34]*Duff & Phelps 2020 SBBI Yearbook at 10-21.*
[35]*Id. at 10-29.*

1   Duff & Phelps explains that the historical market risk premium based on the

2   S&P 500 was influenced by an abnormal expansion of P/E ratios relative to earnings

3   and dividend growth during the period, primarily over the last 30 years. Duff & Phelps

4   believes this abnormal P/E expansion is not sustainable. In order to control for the

5   volatility of extraordinary events and their impacts on P/E ratios, Duff & Phelps takes

6   into consideration the three-year average P/E ratio as the current P/E ratio.[36] Therefore,

7   Duff & Phelps adjusted this market risk premium estimate to normalize the growth in

8   the P/E ratio to be more in line with the growth in dividends and earnings.

9   Finally, Duff & Phelps develops its own recommended equity, or market risk

10   premium, by employing an analysis that takes into consideration a wide range of

11   economic information, multiple risk premium estimation methodologies, and the current

12   state of the economy by observing measures such as the level of stock indices and

13   corporate spreads as indicators of perceived risk. Based on this methodology, and

14   utilizing a "normalized" risk-free rate of 2.5%, Duff & Phelps concludes the current

15   expected, or forward-looking, market risk premium is 5.5%, implying an expected return

16   on the market of 8.5%.[37]

17   Importantly, Duff & Phelps' market risk premiums are measured over a 20-year

18   Treasury bond. Because I am relying on a projected 30-year Treasury bond yield, the

19   results of my CAPM analysis should be considered conservative estimates for the cost

20   of equity.

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[36] *Id.*

[37] *Duff & Phelps*: "Technical Update: Duff & Phelps Recommended U.S. Equity Risk Premium Decreased from 6.0% to 5.5%," December 10, 2020.

1   Q   HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO

2   THAT ESTIMATED BY DUFF & PHELPS?

3   A   The Duff & Phelps analyses indicate a market risk premium falls somewhere in the

4   range of 5.5% to 7.2 %. My market risk premium falls in the range of 6.1% to 9.4%.

5   Q   WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

6   A   The evidence outlined above shows that current observable risk-free rates are around

7   1.85%, but projected risk-free rates increase to around 2.40%. Similarly, current

8   observable beta estimates are around 0.89 but forward-looking more normalized beta

9   estimates have consistently been about 0.70. I will use both of these CAPM factors in

10   deriving a reasonable estimate of the current market cost of equity, and that likely to

11   be reflective as rates determined in this case are in effect. Therefore, I will estimate a

12   CAPM return using a current beta of 0.89, and a normal beta of 0.70, with a current

13   and normalized market risk premium estimate.

14   As shown on my Exhibit MPG-17, using a current market risk-free rate of 1.85%,

15   a projected market return of 11.29%, a market risk premium of 9.44%, and a current

16   beta of 0.89 indicates a CAPM return estimate of 10.24%. Using a market return of

17   11.29%, with a projected risk-free rate of 2.4%, produces a market risk premium of

18   8.9%. This market risk premium and risk-free rate with a normalized utility beta of 0.70,

19   indicates a CAPM return of about 8.65%. The midpoint of the current and normalized

20   CAPM return estimate is 9.45% (midpoint of 10.24% and 8.65%), rounded up to 9.5%.

1   **II.G. Return on Equity Summary**

2   **Q   BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY ANALYSES**

3   **DESCRIBED   ABOVE,   WHAT   RETURN   ON   COMMON   EQUITY   DO   YOU**

4   **RECOMMEND FOR SWEPCO?**

5   A   Based on my analyses, I recommend SWEPCO's current market cost of equity be in

6   the range of 8.90% to 9.35%, with an approximate midpoint of 9.15%.

<table>
<tr><td colspan="2">TABLE 8

Return on Common Equity Summary</td></tr>
<tr><td>Description</td><td>Results</td></tr>
<tr><td>DCF</td><td>8.90%</td></tr>
<tr><td>Risk Premium</td><td>9.20%</td></tr>
<tr><td>CAPM</td><td>9.50%</td></tr>
</table>

7   A return on common equity of 9.15%, which is the approximate midpoint of my

8   recommended range of 8.90% to 9.35%, is supported by both my DCF, my risk

9   premium and CAPM studies. The low-end of my range is based on my DCF return and

10   the high-end of my range is the average of my risk premium and CAPM studies. My

11   return on equity estimates reflect observable market evidence, the impact of Federal

12   Reserve policies on current and expected long-term capital market costs, an

13   assessment of the current risk premium built into current market securities, and a

14   general assessment of the current investment risk characteristics of the electric utility

15   industry and the market's demand for utility securities.

1 **II.H. Financial Integrity**

2 Q **WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN**

3 **INVESTMENT GRADE BOND RATING FOR SWEPCO?**

4 A Yes. I have reached this conclusion by comparing the key credit rating financial ratios

5 for SWEPCO at my proposed return on equity, embedded debt cost, and proposed

6 capital structure to S&P's benchmark financial ratios using S&P's new credit metric

7 ranges.

8 Q **PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT**

9 **METRIC METHODOLOGY.**

10 A S&P publishes a matrix of financial ratios corresponding to its assessment of the

11 business risk of utility companies and related bond ratings. On May 27, 2009, S&P

12 expanded its matrix criteria by including additional business and financial risk

13 categories.[38]

14 Based on S&P's most recent credit matrix, the business risk profile categories

15 are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most utilities

16 have a business risk profile of "Excellent" or "Strong."

17 The financial risk profile categories are "Minimal," "Modest," "Intermediate,"

18 "Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a financial

19 risk profile of "Aggressive." SWEPCO has an "Excellent" business risk profile and a

20 "Significant" financial risk profile.

---

[38]S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect®*: "Criteria Methodology· Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

1   Q   **PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS IN**

2   **ITS CREDIT RATING REVIEW.**

3   A   S&P evaluates a utility's credit rating based on an assessment of its financial and

4   business risks. A combination of financial and business risks equates to the overall

5   assessment of SWEPCO's total credit risk exposure. On November 19, 2013, S&P

6   updated its methodology. In its update, S&P published a matrix of financial ratios that

7   defines the level of financial risk as a function of the level of business risk.

8   S&P publishes ranges for primary financial ratios that it uses as guidance in its

9   credit review for utility companies. The two core financial ratio benchmarks it relies on

10   in its credit rating process include: (1) Debt to Earnings Before Interest, Taxes,

11   Depreciation and Amortization ("EBITDA"); and (2) Funds From Operations ("FFO") to

12   Total Debt.[39]

13   Q   **HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE**

14   **REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?**

15   A   I calculated each of S&P's financial ratios based on SWEPCO's cost of service for its

16   retail utility operations in its Texas service territory. While S&P would normally look at

17   total consolidated SWEPCO financial ratios in its credit review process, my

18   investigation in this proceeding is not the same as S&P's. I am attempting to judge the

19   reasonableness of my proposed cost of capital for rate-setting in SWEPCO's Texas

20   retail utility operations. Hence, I am attempting to determine whether my proposed rate

21   of return will in turn result in cash flow metrics, balance sheet strength, and earnings

22   that will support an investment grade bond rating and SWEPCO's financial integrity.

---

[39]*Standard & Poor's RatingsDirect*®: "Criteria: Corporate Methodology," November 19, 2013.

1   Q   **DID YOU INCLUDE ANY OFF BALANCE SHEET DEBT ("OBS") DEBT**

2   **EQUIVALENTS?**

3   A   Yes, I did. I included the debt equivalents ($264.8 million) calculated by S&P Capital

4   IQ for the most recently available period. In addition, I included the most recent 13-

5   month average amount of short-term debt of $90.1 million as provided by the Company

6   in response to the 4th RFI, TIEC 4-19 and shown on my Exhibit MPG-18. I would also

7   point out that I applied a Texas rate base allocation factor of approximately 37.6% as

8   disclosed by the Company in its Schedule A-1.

9   Q   **PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS AS IT**

10   **RELATES TO SWEPCO'S REGULATED OPERATIONS.**

11 A   The S&P financial metric calculations for SWEPCO at a 9.15% return are developed

12   on Exhibit MPG-18, page 1. The credit metrics produced below, with SWEPCO's

13   financial risk profile from S&P of "Significant" and business risk profile of "Excellent,"

14   will be used to assess the strength of the credit metrics based on SWEPCO's retail

15   operations in the state of Texas.

16   The adjusted debt ratio for credit metric purposes at my proposed capital

17   structure is 53.1%, which is slightly higher but comparable to the debt ratio for the A-

18   rated utilities of approximately 52.3%.

19   Based on an equity return of 9.15% and the Company's proposed common

20   equity ratio of 49.37%, SWEPCO will be provided an opportunity to produce a Debt to

21   Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") ratio of

22   3.8x. This is within S&P's "Significant" guideline range of 3.5x to 4.5x,[40] which supports

23   SWEPCO's credit rating.

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[40] *Standard & Poor's RatingsDirect*® "Criteria: Corporate Methodology," November 19, 2013.

1   SWEPCO's retail utility operations FFO to total debt coverage at a 9.15% equity

2   return and 49.37% equity ratio is 19%, which is within S&P's "Significant" metric

3   guideline range of 13% to 23%. Again, this FFO/total debt ratio will support a ratio

4   consistent with SWEPCO's "Excellent" business profile from S&P.

5 Q **DOES THIS FINANCIAL INTEGRITY ASSESSMENT SUPPORT YOUR**

6   **RECOMMENDED OVERALL RATE OF RETURN FOR SWEPCO?**

7 A Yes. As noted above, I believe my return on equity represents fair compensation in

8   today's very low capital market costs, and as outlined above, my overall rate of return

9   will provide SWEPCO an opportunity to earn credit metrics that will support its bond

10   rating.

11   **III. RESPONSE TO SWEPCO WITNESS MR. DYLAN D'ASCENDIS**

12 Q **WHAT RETURN ON COMMON EQUITY IS SWEPCO PROPOSING FOR THIS**

13   **PROCEEDING?**

14 A Mr. D'Ascendis estimates a market return on equity in the range of 9.85% to 10.96%

15   using three market models – DCF, risk premium, and CAPM, applied to a utility proxy

16   group and a non-price regulated proxy group. He then includes two ROE adders to his

17   estimated market return on equity for SWEPCO: (1) a size adjustment of 20 basis

18   points; and (2) a credit risk adjustment of 27 basis points. With these adders to his

19   market return on equity, Mr. D'Ascendis recommends a return on equity within the

20   range of 10.32% to11.43% with a point estimate return of 10.35%.[41]

---

[41]D'Ascendis Direct Testimony at 6 and Schedule DWD-1, Page 1.

1   Q   **IS MR. D'ASCENDIS' ESTIMATED RETURN ON EQUITY REASONABLE?**

2   A   No. Mr. D'Ascendis' estimated market return in the range of 9.85% to 10.96% for his

3   proxy group companies is significantly overstated based on his use of overstated risk

4   premium estimates for both his risk premium and CAPM models. Further, his proposed

5   return on equity adders, 47 basis points, are not cost-justified and inflate his

6   recommended return on equity to exceed his own market cost of equity projections.

7   These equity return adders should be rejected.

8   Q   **PLEASE DESCRIBE MR. D'ASCENDIS' METHODOLOGIES USED TO SUPPORT**

9   **HIS ESTIMATE OF THE MARKET COST OF COMMON EQUITY.**

10   A   Mr. D'Ascendis estimates a return on equity for SWEPCO based on the DCF model, a

11   Risk Premium ("RP") model that he calls the Predictive Risk Premium Model™

12   ("PRPM"), a bond yield plus risk premium model, as well as the traditional and empirical

13   forms of the CAPM. Mr. D'Ascendis applies these models to both a utility proxy group

14   and a non-price regulated proxy group. Mr. D'Ascendis estimated the high-end

15   (10.96%) of his return on equity range by averaging all of his studies applied to both

16   his utility and non-price regulated proxy groups. The low-end of his range (9.85%) was

17   generated by averaging his lowest DCF estimate of 8.73% with the high-end of the

18   range (10.96%).[42]

19   Q   **PLEASE SUMMARIZE MR. D'ASCENDIS' RESULTS.**

20   A   Mr. D'Ascendis' results are summarized in Table 8 below.

---

[42]D'Ascendis Direct Testimony at 6.

TABLE 8

Summary of Mr. D'Ascendis' Return on Equity Estimates

Model	D'Ascendis Estimate (1)	Corrected Estimate (2)
DCF	8.73%	8.73%
RP	10.54%	9.00%
CAPM	12.46%	9.60%
Non-Price Regulated Companies	12.12%	Reject
Indicated Return on Equity	9.85%-10.96%	9.11%
Size Adjustment	0.20%	Reject
Credit Risk Adjustment	0.27%	Reject
Total Adders	0.47%	Reject
Return on Equity Range	10.32%-11.43%	
Recommended Return on Equity	10.35%	9.15%

Sources:
D'Ascendis Direct Testimony at 6 and Schedule DWD-1, page 2.

---

1   For the reasons outlined below, reasonable adjustments to Mr. D'Ascendis'

2   return on equity estimates reduce his findings from 10.35% down to approximately

3   9.10%. All of this shows that my recommended return of 9.15% is reasonable and

4   conservatively high.

1   **III.A. D'Ascendis Proposed Size Adjustment Adder**

2   **Q   PLEASE DESCRIBE THE SIZE ADJUSTMENT RETURN ON EQUITY ADDER**

3   **PROPOSED BY MR. D'ASCENDIS.**

4   A   Mr. D'Ascendis proposes to add a return on equity adder of 20 basis points to his proxy

5   group market return to reflect his belief that SWEPCO's has greater risk relative to that

6   of his proxy group companies, due to its market capitalization size.[43]

7   **Q   HOW DID MR. D'ASCENDIS ESTIMATE THIS 20 BASIS POINT SIZE ADDER?**

8   A   Mr. D'Ascendis approximates a market value for SWEPCO (SWEPCO is not publicly

9   traded and does not have a market value), and compares this market size to the actual

10   market capitalization size for his utility proxy group. Mr. D'Ascendis estimates that the

11   utility proxy group market valuation is about 8.7 times larger than his estimated market

12   value for SWEPCO.

13   He then compares the actual market capitalization size for the proxy group, and

14   his estimated proxy value weight for SWEPCO, to the market capitalization size deciles

15   published by Duff & Phelps.

16   He relies on Duff & Phelps estimated CAPM return difference for companies

17   that fall within market capitalization size deciles. Mr. D'Ascendis estimates that the

18   proxy group market capitalization size puts it in the approximate 2nd decile of returns

19   as estimated by Duff & Phelps, and his estimated market capitalization for SWEPCO

20   puts it in the 6th decile size return category. The difference between the 6th decile and

21   the 2nd decile indicates a return on equity adder of around 0.84%, to reflect the

22   difference in risk caused by market capitalization size. However, using his judgment,

---

[43] D'Ascendis Direct Testimony at 52-56.

1   Mr. D'Ascendis recommends a return on equity size adder for SWEPCO of 20 basis

2   points.[44]

3 Q **IS MR. D'ASCENDIS' PROPOSED 20 BASIS POINT SIZE RETURN ON EQUITY**

4   **ADDER FOR SWEPCO REASONABLE?**

5 A No. There are several fundamental errors and flaws in Mr. D'Ascendis' quantitative

6   estimate and logic. First and foremost, SWEPCO is not a publicly traded company.

7   For this reason, Mr. D'Ascendis does not know what the market value capitalization is

8   for SWEPCO. His approximation simply is not meaningful and cannot be used to make

9   an accurate measurement of a return on equity adder if one is so justified, which it is

10   not.

11   Second, a return on equity adder is not justified because SWEPCO is a

12   subsidiary of AEP Inc., which has a market capitalization of around $38 billion. This

13   compares with the average market capitalization for the proxy group of approximately

14    $15 billion.[45] AEP Inc. has a larger market capitalization than the proxy group has;

15   therefore, a return on equity adder is not justified.

16   Stated very simplistically, the holding company which owns SWEPCO has a

17   market capitalization that is *greater* than that of the proxy group company average.

18   SWEPCO gets its equity from equity infusions from its parent company and the

19   earnings it retains. SWEPCO does not sell stock to the market. For this reason, the

20   market capitalization of its parent company is what is relevant in assessing SWEPCO's

21   market capitalization risk and not Mr. D'Ascendis' estimation of an implied stand-alone

22   market capitalization for SWEPCO.

---

[44] D'Ascendis Direct Testimony at 55.
[45] D'Ascendis Direct Testimony at 55 and Schedule DWD-8.

1   Third, SWEPCO, as a subsidiary of AEP, receives services from AEP through

2   its affiliate service contracts. As such, SWEPCO pays to be part of AEP's larger

3   system, and is entitled to all the benefits of that larger system because of the affiliate

4   service agreement. Thus, being part of AEP's total system reduces SWEPCO's stand-

5   alone investment risk, including being a small company.

6   For example, the affiliate service agreement allows SWEPCO to attract larger

7   management, rely on service company services including executive, Treasury,

8   accounting, legal, engineering and other specialty areas. Additionally, SWEPCO is

9   provided access to equity capital through AEP, including its ability to make dividend

10   payments consistent with policies at AEP. Finally, SWEPCO's access to debt markets

11   is also improved through its credit standing affiliation with its larger company, which is

12   reflected in its cost of debt. For all these reasons, adding a small company risk adder

13   to SWEPCO ignores the fact that SWEPCO is not a stand-alone small company, but

14   rather an affiliate of one of the largest electric utilities operating in the U.S.

15   The size return on equity adder, as proposed by Mr. D'Ascendis, is not

16   appropriate and should be denied.

17   **III.B. D'Ascendis Proposed Credit Risk Adjustment**

18   **Q   SHOULD MR. D'ASCENDIS' PROPOSED 27 BASIS POINT RETURN ON EQUITY**

19   **ADDER FOR CREDIT RISK BE INCLUDED IN A RETURN ON EQUITY?**

20   A   No, it should not. Mr. D'Ascendis proposed an upward adjustment of 27 basis points

21   to reflect the higher credit rating of the utility proxy group relative to SWEPCO.[46] The

22   credit rating applied for each publicly traded company included in Mr. D'Ascendis' proxy

23   group is developed on his Schedule DWD-4, and the workpapers included in his excel

---

[46]D'Ascendis Direct Testimony at 56-57.

1   spreadsheet. As stated above, the proxy group's average credit ratings of BBB+ from

2   S&P and Baa1 from Moody's are comparable to SWEPCO's credit ratings of A- from

3   S&P and Baa2 from Moody's. The proxy group is a reasonable risk proxy to SWEPCO

4   and this external adjustment to the estimated market cost of equity is not justified nor

5   does it produce a return on equity that is cost justified and fair to both SWEPCO and is

6   customers. This ROE adder should be denied.

7   **III.C. D'Ascendis DCF**

8   Q   **PLEASE DESCRIBE MR. D'ASCENDIS' DCF ANALYSIS.**

9   A   Mr. D'Ascendis performed a constant growth DCF analysis on his proxy group. He

10   relied on analysts' earnings growth rate projections from *Value Line*, Zack's, and

11   Yahoo! Finance. The average growth rate for his proxy group is 4.79%. (Schedule

12   DWD-3, page 1). He used an annualized dividend and a 60-day average stock price

13   to calculate the proxy group's dividend yield. The mean and median results of his DCF

14   analysis are 8.63% and 8.82%, respectively with an average DCF return of 8.73%.

15   Q   **DO YOU HAVE ANY COMMENTS CONCERNING MR. D'ASCENDIS' DCF RETURN**

16   **ESTIMATES?**

17   A   Yes. Similar to my DCF model, his proxy group's average DCF return is based on a

18   growth rate of 4.79%, which is higher than the consensus economists' projected growth

19   rate for the economy (4.35%). Therefore, his DCF analysis produces a conservative

20   reasonable high-end DCF result.

1   **III.D. D'Ascendis Risk Premium**

2   **Q   PLEASE DESCRIBE MR. D'ASCENDIS' RISK PREMIUM ANALYSIS.**

3   A   Mr. D'Ascendis estimated a risk premium return of 10.54% based on the results of a

4   PRPM risk premium (10.27%) and a projected utility bond risk premium (10.80%).

5   (Schedule DWD-4, page 1).

6   **Q   PLEASE DESCRIBE MR. D'ASCENDIS' PRPM™ RISK PREMIUM STUDY.**

7   A   First, he derived an equity risk premium using the "PRPM™." The PRPM™ model

8   estimated a proxy group average equity risk premium of 8.24%. He then added a

9   forecasted risk-free rate of 2.09%, to produce an average and median cost of equity of

10   10.33% and 10.21%, respectively, with a midpoint PRPM™ risk premium estimate of

11   10.27%. (*Id.*, page 2).

12   **Q   PLEASE DESCRIBE MR. D'ASCENDIS' UTILITY RISK PREMIUM STUDY.**

13   A   Mr. D'Ascendis' utility risk premium model is based on a projected utility bond yield of

14   3.78%, and an average equity risk premium of 7.02%. The projected utility yield has

15   been adjusted to account for the risk differential between an A-rated utility bond yield

16   and the proxy group credit rating. (Schedule DWD-4, page 3).

17   The 7.02% risk premium used by Mr. D'Ascendis is the result of three separate

18   risk premium study results of 9.42%, 5.77% and 5.88%. The first risk premium result

19   of 9.42% was developed on page 8 of Schedule DWD-4. This risk premium was based

20   on six estimates of equity risk premiums: three based on the Ibbotson data, including

21   an equity risk premium (5.78%), a regression risk premium (9.34%), and his PRPM

22   methodology (9.55%), as well as an equity risk premium estimated based on *Value*

23   *Line* Summary and Index Data (13.50%), a S&P 500 DCF derived equity risk premium

24   using *Value Line* data (10.63%), and an S&P 500 DCF derived equity risk premium

1   using Bloomberg data (10.72%). The average of these six risk premium estimates of

2   9.92% was then adjusted by his proxy group average beta of 0.95, to produce a risk

3   premium estimate of 9.42%.

4   The second risk premium of 5.77% is based on a historical equity risk premium

5   of the S&P Utility Index of 4.21%, averaged with Mr. D'Ascendis' regression risk

6   premium (6.76%) and PRPM risk premium (5.57%) methodologies and a forecasted

7   equity risk premium of the total returns of the S&P Utility Index from *Value Line* of 6.93%

8   and 5.40% from Bloomberg. The average of these five risk premiums is 5.77%.

9   The third risk premium of 5.88% is based on a regression analysis of 1,167 fully

10   litigated rate cases for the period 1980 to July 31, 2020 as shown on page 13 of

11   Schedule DWD-4.

12   **Q   IS MR. D'ASCENDIS' PREDICTIVE RISK PREMIUM MODEL ("PRPM") STUDY**

13   **RESULT OF 10.27% REASONABLE?**

14   A   No. Mr. D'Ascendis' predictive risk premium model measures the volatility of annual

15   return based on a time varying volatility comparison of the volatility of a stock index

16   "total" return, compared to the volatility of a Treasury Bond "Income" return, or yield.

17   Mr. D'Ascendis claims that this methodology is consistent with autoregressive

18   conditional heteroscedasticity (ARCH) methodology published by Robert F. Engle in

19   the *Journal of Regulatory Economics*. However, he has not provided this article, and

20   has not demonstrated that his proposed comparison between the annual volatility on

21   the total returns of equities and the annual volatility of Treasury bond yields produces

22   an accurate historical database in order to draw projections of return volatility

23   comparisons going forward.

24   More specifically, Mr. D'Ascendis' methodology is based on a mismatch of total

25   returns for stocks (i.e., including capital gains and losses plus dividend income),

1   compared to a return on bond investments that reflects the yield only, and therefore

2   ignores changes in the prices of long-term bond investments. His returns are not

3   directly comparable because he should have included a total return for both stock and

4   bond investments.

5   To explain, a significant component of return volatility on both stocks and bonds

6   are created by capital gains and losses (i.e., changes in the prices of the stocks or

7   bonds). Without recognizing capital gains and losses, stock return volatility and bond

8   return volatility would be muted significantly. This is a significant distinction because

9   Mr. D'Ascendis reflects the increased return volatility for stocks based on capital gains

10 and losses, but ignores this significant investment return component for bond yields.

11 Therefore, Mr. D'Ascendis has not accurately measured the level of the risk premium,

12 nor accurately characterized the volatility across time caused by market factors.

13 Importantly, both stock and bond returns will be impacted by the capital gains and

14 losses created by market factors that influence stock prices and bond prices. By

15 including capital gains for stocks, but not bonds, Mr. D'Ascendis has significantly

16 understated the return volatility of investing in bonds, and inflated the equity risk

17 premium. This methodology simply is not balanced, and does not reflect an accurate

18 measurement of a market risk premium.

19 Q   DO YOU HAVE ANY COMMENTS CONCERNING MR. D'ASCENDIS' UTILITY RISK

20   PREMIUM?

21 A   Yes. This risk premium of 10.80% was based on a projected prospective bond yield of

22   3.78% and an equity risk premium of 7.02%. This return on equity is substantially

23   overstated for several reasons. First, his prospective bond yield of 3.78% overstates

24   current observable A-rated utility bond yields of 2.92%. (Schedule DWD-4 at 4).

1   Overstating the bond yield overstates his risk premium by approximately 86 basis

2   points.

3   Further Mr. D'Ascendis' utility risk premium of 7.02% as discussed above was

4   based on an overly simplistic regression analysis. His regression model simply

5   assumed that there is a simplistic inverse relationship between equity risk premiums

6   and interest rates. This assumption ignores changes in risk premium that relate to

7   other market factors that create differences in investment risk between stock and bond

8   investments. Academic studies are quite clear that interest rates are a relevant factor

9   in assessing current market equity risk premiums, but the risk premium ties more

10   specifically to the market's perception of "investment risk" of debt versus equity

11   securities, and not simply changes in interest rates.

12   More specifically, while academic studies have shown that, in the past, there

13   has been an inverse relationship among these variables, researchers have found that

14   the relationship changes over time and is influenced by changes in perception of the

15   risk of bond investments relative to equity investments, and not simply changes to

16   interest rates.[47]

17   In the 1980s, equity risk premiums were inversely related to interest rates, but

18   that was likely attributable to the interest rate volatility that existed at that time. As

19   such, when interest rates were more volatile, perceptions of bond investment risk

20   increased relative to the investment risk of equities. This changing investment risk

21   perception caused changes in equity risk premiums.

[47]"Robert S. Harris and Felicia C. Marston, "The Market Risk Premium: "Expectational Estimates Using Analysts' Forecasts," *Journal of Applied Finance*, Volume 11, No. 1, 2001 at 10-13, Eugene F. Brigham, Dilip K Shome, and Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985 at 42-43.

1   In today's marketplace, interest rate volatility is not as extreme as it was during

2   the 1980s.[48] Nevertheless, changes in the perceived risk of bond investments relative

3   to equity investments still drive changes in equity premiums and cannot be measured

4   simply by observing nominal interest rates. Changes in nominal interest rates are

5   heavily influenced by changes to inflation outlooks, which also change equity return

6   expectations. As such, the relevant factor needed to explain changes in equity risk

7   premiums is the relative changes between the risk of equity versus debt investments,

8   and not simply changes in interest rates.

9   Importantly, Mr. D'Ascendis' analysis simply ignores investment risk

10   differentials. He bases his adjustment to the equity risk premium exclusively on

11   changes in nominal interest rates. This is a flawed methodology that does not produce

12   accurate or reliable risk premium estimates.

13 Q **DO YOU BELIEVE THAT THE REGRESSION STUDY USED BY MR. D'ASCENDIS**

14   **IN HIS RISK PREMIUM ANALYSIS DEMONSTRATES AN ACCURATE CAUSE AND**

15   **EFFECT BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS?**

16 A No. Because the returns on equity he uses are authorized by commissions, those

17   returns on equity are not directly adjusted by market forces. Rather, authorized equity

18   returns are adjusted by commission policy and regulatory practices. In contrast, bond

19   interest rates or bond yields are controlled entirely by market forces.

20   Equity risk premiums can move based on changes in market conditions that can

21   impact both equity returns and bond returns in a like manner. This simple regression

22   analysis of equity risk premiums and interest rates ignores these relevant market

23   factors in describing the current market-required equity risk premium.

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[48]Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985 at 44

1   Q   **CAN MR. D'ASCENDIS' RISK PREMIUM MODELS BE USED TO ESTIMATE A FAIR**

2   **RETURN FOR SWEPCO?**

3   A   Only generally. Reflecting an updated observable A-rated utility bond yields of 3.21%

4   (Exhibit MPG-15) and my equity risk premium estimate of 5.77% (Exhibit MPG-13)

5   would imply a return on equity for SWEPCO of 8.98%, rounded to 9.00%.

6   **III.E.   D'Ascendis CAPM**

7   Q   **HOW DID MR. D'ASCENDIS DERIVE HIS CAPM RETURN ESTIMATE FOR**

8   **SWEPCO?**

9   A   Mr. D'Ascendis developed his CAPM return estimate on his Schedule DWD-5. As

10   shown on that schedule, he relied on a proxy group beta of 0.95 which was the average

11   of the mean and median beta published by Bloomberg and *Value Line* for his proxy

12   companies, a market risk premium of 10.92%, and a risk-free rate of 2.09% to produce

13   a CAPM return of 12.37%.

14   Q   **DO YOU HAVE ANY ISSUES WITH MR. D'ASCENDIS' CAPM STUDY?**

15   A   I disagree with several aspects of his methodology. First, his market risk premium of

16   10.92% is excessive and unreliable due to unsustainable growth rates he used to

17   develop a market return. Second, his projected risk-free rate of 2.09% is largely driven

18   by Treasury bond yield projections out to 2031. Even though I disagree with Mr.

19   D'Ascendis' reliance on projected yields 5-10 years in the future, I would not take issues

20   with his risk free rate of 2.09% because it is comparable to the near-term projected

21   yield as described in my CAPM study. Finally, his market risk premium estimates suffer

22   from many of the same previously described flaws surrounding his equity risk premium

23   estimates such as his significant reliance on the unproven PRPM™ methodology.

1 Q **WHY DO YOU BELIEVE MR. D'ASCENDIS' MARKET RISK PREMIUM IS**

2   **EXCESSIVE AND UNRELIABLE?**

3 A Mr. D'Ascendis averages six market risk premium estimates to develop his

4   recommended market risk premium of 10.92%.

5   His first market risk premium estimate is based on historical Ibbotson data. With

6   this methodology, he estimates a market risk premium of 7.01%. His second market

7   risk premium is based on a regression analysis and produced a risk premium of

8   10.20%. His third market risk premium is based on the application of his PRPM™

9   method using historical Ibbotson data. This method produces a market risk premium

10   of 10.67%.

11   His fourth market risk premium is based on a *Value Line* 3-5 year projected

12   market return of 16.53% less his risk-free rate of 2.09% to derive an expected market

13   risk premium on the *Value Line* index of 14.44%. His fifth market risk premium is based

14   on a *Value Line* projected return on the S&P 500 of 13.66%, which produced a risk

15   premium of 11.57% after his risk-free rate is subtracted.

16   Finally, he uses Bloomberg growth rates to perform a DCF on the S&P 500.

17   This method produces a return on the market of 13.75% from which he subtracts his

18   projected risk-free rate of 2.09% to produce a market risk premium of 11.66%. The

19   average of these six market risk premiums is 9.54%. (Schedule DWD-5, page 2).

20 Q **ARE THE RESULTS OF MR. D'ASCENDIS' CAPM ESTIMATE REASONABLE?**

21 A No. His market risk premium estimates based on the Bloomberg and *Value Line*

22   projected returns on the market are significantly overstated because they are based on

23   DCF studies with growth rates that are not sustainable.

1   Q   **PLEASE EXPLAIN WHY MR. D'ASCENDIS' MARKET RISK PREMIUMS ARE**

2   **OVERSTATED.**

3   A   Mr. D'Ascendis' *Value Line* 3-5 appreciation market risk premium, his *Value Line*

4   market risk premium based on the S&P 500 and his Bloomberg-based DCF-derived

5   market risk premiums are based on inflated market returns of 16.53%, 13.66% and

6   13.75%, respectively. These projected market returns are produced using growth rates

7   of 14.02%, 11.82% and 11.93%, and market dividend yields of 2.51%, 1.83% and

8   1.82%, respectively.

9   As discussed above, the DCF model requires a long-term sustainable growth

10   rate. Mr. D'Ascendis' sustainable market growth rates in the range of 11.82% to

11   14.02% are far too high to be a rational outlook for sustainable long-term market

12   growth. These growth rates are around three times the consensus analysts' projected

13   long-term growth of the U.S. GDP of 4.35%.

14   As a result of his inflated long-term market growth rate, Mr. D'Ascendis'

15   projected market returns are likewise inflated and not reliable. Mr. D'Ascendis' Value

16   Line risk premiums of 14.44% and 11.57% and his Bloomberg market risk premium of

17   11.66% should be given no weight in estimating a fair return for SWEPCO in this case.

18   Q   **DO HISTORICAL ACTUAL RETURNS ON THE MARKET SUPPORT MR.**

19   **D'ASCENDIS' PROJECTED MARKET RETURNS?**

20   A   No. Mr. D'Ascendis relies on historical market returns data to develop one of his market

21   risk premiums. The market risk premium he developed using historical data is 7.01%,

22   or 465 to 743 basis points less than his unreasonable projected market return based

23   Value Line and Bloomberg market returns. Historical data shows just how

24   unreasonable Mr. D'Ascendis' projected returns on the market are going forward.

1   **Q**   **PLEASE EXPLAIN.**

2   A   Duff & Phelps estimates the actual capital appreciation for the S&P 500 over the period

3   1926 through 2019 to have been 6.1% to 7.9%.[49] This compares to Mr. D'Ascendis'

4   projected growth on the market in the range of 11.82% to 14.02%.

5   Further, historically the geometric growth of the market of 6.1% has reflected

6   geometric growth of GDP over this same time period of approximately 6.0%.[50]

7   This review of historical data establishes two facts very clearly. First, historical

8   actual achieved growth has been substantially less than that projected by Mr.

9   D'Ascendis. Second, historical growth on the market has tracked, at a lagging pace,

10   historical growth of the U.S. GDP. Projected growth of the U.S. GDP now is closer to

11   the 4%-5% area. All of this information strongly supports the conclusion that Mr.

12   D'Ascendis' projected growth on the market in the range of 11.82% to 14.02% is

13   substantially overstated. While I do not endorse the use of a historical growth rate to

14   draw assessments of the market's forward-looking growth rate outlooks, this data can

15   be used to show how the market return estimates produced by Mr. D'Ascendis are

16   unreasonable and inflated.

17   **Q**   **CAN MR. D'ASCENDIS' CAPM ANALYSIS BE REVISED TO REFLECT A MORE**

18   **REASONABLE MARKET RISK PREMIUM AND RECENT RISK-FREE RATES?**

19   A   Yes. Relying on Mr. D'Ascendis risk-free rate of 2.09%, his utility beta of 0.95 and his

20   historical market risk premium of 7.01%, produces a return on equity of 8.75%. Using

21   the same parameters and my normalized market risk premium of 8.9% will produce a

22   return on equity of 10.55%. The midpoint of these return on equity estimates will

23   produce a return on equity no higher than 9.6% for SWEPCO.

---

[49]*Duff & Phelps, 2020 SBBI Yearbook* at 6-17.
[50] U.S. Bureau of Economic Analysis, January 28, 2021.

1 **III.F. D'Ascendis ECAPM**

2 **Q PLEASE DESCRIBE MR. D'ASCENDIS' ECAPM ANALYSIS.**

3 A Mr. D'Ascendis applies the same beta, market risk premium and risk-free rate for his

4 ECAPM. The ECAPM analysis modifies the traditional CAPM equation by including a

5 risk premium weighted by the utility beta, and the overall market beta of 1.0. The

6 original ECAPM analysis was designed to use raw, or unadjusted, regression betas. In

7 Mr. D'Ascendis' ECAPM analysis, he adds two weighted risk premiums to a risk-free

8 rate: a 75% weighted risk premium based on a 0.95 utility beta, and a 25% weighted

9 risk premium based on a beta equal to the overall market beta of 1.0. The theory of

10 the ECAPM is that a beta of less than 1.0 will increase toward the market beta of 1.0

11 over time, which is necessary because the risk of securities will be increasing over time.

12 **Q WHAT ISSUES DO YOU TAKE WITH MR. D'ASCENDIS' ECAPM ANALYSIS?**

13 A The biggest issue I have with Mr. D'Ascendis' ECAPM analysis is his use of an adjusted

14 beta as published by *Value Line*. The impact of Mr. D'Ascendis' ECAPM adjustment is

15 to increase his beta estimate from 0.95 to 0.96.[51] The weighting adjustments applied

16 in the ECAPM are mathematically the same as adjusting beta since the inputs are all

17 multiplicative as shown in the formula above.

18 Mr. D'Ascendis' reliance on an adjusted *Value Line* beta in his ECAPM study is

19 inconsistent with the academic research that I am aware of supporting the

20 development of the ECAPM.[52] The *Value Line* adjusted betas are already adjusted to

21 for their long-term tendency to converge to 1.00. Thus, the end result of using the

22 *Value Line* adjusted betas in the ECAPM is essentially an expected return line that has

---

[51]75% x 0 95 + 25% x 1 = 0.96

[52]See Black, Fischer, "Beta and Return," *The Journal of Portfolio Management,* Fall 1993, 8-18; and Black, Fischer, Michael C. Jensen and Myron Scholes, "The Capital Asset Pricing Model: Some Empirical Tests," 1972.

1   been flattened by two duplicative adjustments. In other words, the vertical intercept

2   has been raised twice and the security market line has been flattened twice: once

3   through the adjustments *Value Line* made to the raw beta, and again by weighting the

4   risk-adjusted market risk premium as Mr. D'Ascendis has done.

5   Moreover, Mr. D'Ascendis further increases the intercept and flattens the

6   security market line by using projected long-term Treasury yields that are at odds with

7   current market expectations and inconsistent with the Federal Reserve's projections

8   and monetary policy.

9   The ECAPM will raise the intercept point of the security market line and flatten

10   the slope. Again, this has the effect of increasing CAPM return estimates for

11   companies with betas less than 1, and decreasing the CAPM return estimates for

12   companies with betas greater than 1. I have modeled the expected return line resulting

13   from the application of the various forms of the CAPM/ECAPM below in Figure 5.

FIGURE 5

Variations of the CAPM

	0 00	0 10	0 20	0 30	0.40	0.50	0.60	0.70	0.80	0 90	1 00	1 10	1 20	1 30	1.40
	0 35	0 42	0 48	0 55	0.62	0 69	0 75	0 82	0.89	0 95	1.02	1.09	1 15	1.22	1 29

Beta

- CAPM - Raw Beta
- CAPM - VL Beta
- ECAPM - Raw Beta
- ECAPM - VL Beta
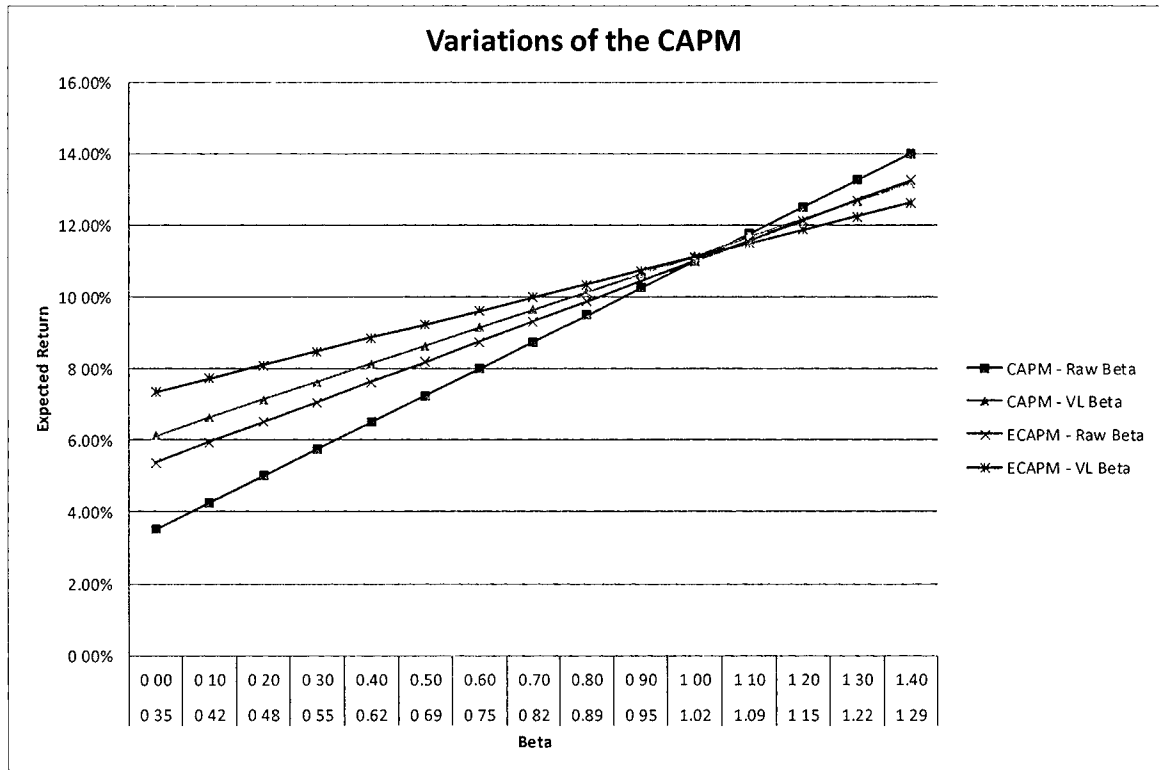
1   Along the horizontal axis in Figure 5 above, I have provided the raw unadjusted

2   beta (top row) and the corresponding adjusted *Value Line* beta (bottom row). As shown

3   in Figure 5 above, the CAPM using a *Value Line* beta compared to the CAPM using an

4   unadjusted beta shows that the *Value Line* beta raises the intercept point and flattens

5   the slope of the security market line. As shown in the figure above, the two variations

6   with the most similar slope are the CAPM with the *Value Line* beta, and the ECAPM

7   with a raw beta. This evidence shows that the ECAPM adjustment has a very similar

8   impact on the expected return line as a *Value Line* adjusted beta. Another observation

9   that can be made from the figure above is the magnifying effect that the ECAPM using

10   a *Value Line* adjusted beta has on raising the vertical intercept and flattening the slope

11   relative to all other variations. There is simply no legitimate basis to use an adjusted

1   beta within an ECAPM because it unjustifiably alters the security market line and

2   materially inflates a CAPM return for a company with a beta less than 1.

3   **Q**   **IN YOUR EXPERIENCE, IS MR. D'ASCENDIS' PROPOSED USE OF AN ADJUSTED**

4   **BETA IN AN ECAPM STUDY WIDELY ACCEPTED IN THE REGULATORY ARENA?**

5   **A**   No. In my experience, regulatory commissions generally disregard the use of the

6   ECAPM, particularly when an adjusted beta is used in the model. Therefore, Mr.

7   D'Ascendis' ECAPM analysis should be rejected.

8   **Q**   **IS THERE A WAY TO MORE ACCURATELY MEASURE THE COST OF EQUITY**

9   **FOR SWEPCO USING THE ECAPM?**

10   **A**   Using the appropriate unadjusted beta in the ECAPM would produce a reasonable

11   return estimate. This can be accomplished by removing, or backing out, the adjustment

12   from *Value Line's* published beta.

13   Removing *Value Line's* beta adjustment will produce the original regression

14   beta estimate. Using this regression beta in the ECAPM will produce a more accurate

15   result than that offered by Mr. D'Ascendis. As explained earlier, Mr. D'Ascendis' proxy

16   group has an average *Value Line* beta of 0.95. By removing the adjustments that *Value*

17   *Line* made to produce the proxy group's average beta of 0.95, I have calculated the

18   original regression beta of 0.90.[53] Using the regression beta of 0.90 in the ECAPM

19   model shown above will produce an expected return estimate of approximately 8.6%.[54]

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[53]Raw Beta = (VL Beta - 0.35) / 0.67, Raw Beta = (0.95-0.35)/0.67 = 0.90

[54]ECAPM = RF + 0.25 x MRP + 0.75 x MRP x Unadjusted Beta. ECAPM = 2.09% + 0.25 x 7.01% + 0.75 x 7.01% x 0.90 = 8.57%, rounded to 8.6%.

1   **III.G. D'Ascendis Non-Regulated Company Analysis**

2   **Q   PLEASE DESCRIBE MR. D'ASCENDIS' NON-PRICE REGULATED COMPANIES'**

3   **EARNED RETURN ON EQUITY METHODOLOGY.**

4   A   Mr. D'Ascendis' non-price regulated return on equity estimate is based on the results

5   from the same cost of equity studies described above using a proxy group of 45 non-

6   price regulated companies that he chose based solely on whether they had betas within

7   two standard deviations of the beta of his utility proxy group. The average result of his

8   mean and median market-based studies on his non-price regulated companies

9   produced his estimated return on equity from this methodology of 12.12% ((12.15% +

10   12.09%) ÷ 2). (Schedule DWD-7, Page 1).

11   **Q   IS MR. D'ASCENDIS' NON-PRICE REGULATED RISK PROXY GROUP**

12   **REASONABLE TO ESTIMATE THE CURRENT RETURN ON EQUITY FOR**

13   **SWEPCO?**

14   A   No. Mr. D'Ascendis has not proven that these companies are risk-comparable to

15   SWEPCO. While these companies may have comparable beta estimates, he has not

16   shown that they face comparable business and operating risk to a low-risk regulated

17   electric utility company. For example, Mr. D'Ascendis' non-price regulated proxy group

18   includes large technology firms such as Apple Inc. and Alphabet Inc. It is simply not

19   credible to believe that these firms are comparable in business and operating risk as

20   regulated utilities. To draw a valid comparison between SWEPCO and any proxy

21   group, it is necessary to show that these companies have comparable risk factors that

22   are commonly used by investment professionals to compare investment risk between

23   different investment alternatives. Because he has not shown that these companies are

24   indeed risk comparable to SWEPCO, his estimated return on this proxy group is not

25   reliable and should be disregarded.

1   Further, the RP and CAPM estimates on Mr. D'Ascendis' non-utility proxy group

2   were flawed and biased for the same reasons described above concerning his utility

3   proxy group. As such, his return on equity estimates based on his non-utility proxy

4   group do not reflect a reasonable risk proxy for SWEPCO, and are based on flawed

5   applications of DCF risk premiums, with inappropriate return on equity adders.

6   Therefore, the Commission should reject the use of Mr. D'Ascendis non-price regulated

7   proxy group.

8   **Q   DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

9   **A**   Yes, it does.

Qualifications of Michael P. Gorman

1   **Q**   **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2   A   Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,

3   Chesterfield, MO 63017.

4   **Q**   **PLEASE STATE YOUR OCCUPATION.**

5   A   I am a consultant in the field of public utility regulation and a Managing Principal with

6   the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory

7   consultants.

8   **Q**   **PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK**

9   **EXPERIENCE.**

10   A   In 1983 I received a Bachelor of Science Degree in Electrical Engineering from

11   Southern Illinois University, and in 1986, I received a Master's Degree in Business

12   Administration with a concentration in Finance from the University of Illinois at

13   Springfield. I have also completed several graduate level economics courses.

14   In August of 1983, I accepted an analyst position with the Illinois Commerce

15   Commission ("ICC"). In this position, I performed a variety of analyses for both formal

16   and informal investigations before the ICC, including: marginal cost of energy, central

17   dispatch, avoided cost of energy, annual system production costs, and working capital.

18   In October of 1986, I was promoted to the position of Senior Analyst. In this position, I

19   assumed the additional responsibilities of technical leader on projects, and my areas

20   of responsibility were expanded to include utility financial modeling and financial

21   analyses.

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1   In 1987, I was promoted to Director of the Financial Analysis Department. In

2   this position, I was responsible for all financial analyses conducted by the Staff. Among

3   other things, I conducted analyses and sponsored testimony before the ICC on rate of

4   return, financial integrity, financial modeling and related issues. I also supervised the

5   development of all Staff analyses and testimony on these same issues. In addition, I

6   supervised the Staff's review and recommendations to the Commission concerning

7   utility plans to issue debt and equity securities.

8   In August of 1989, I accepted a position with Merrill-Lynch as a financial

9   consultant. After receiving all required securities licenses, I worked with individual

10 investors and small businesses in evaluating and selecting investments suitable to their

11 requirements.

12   In September of 1990, I accepted a position with Drazen-Brubaker &

13 Associates, Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc. was

14 formed. It includes most of the former DBA principals and Staff. Since 1990, I have

15 performed various analyses and sponsored testimony on cost of capital, cost/benefits

16 of utility mergers and acquisitions, utility reorganizations, level of operating expenses

17 and rate base, cost of service studies, and analyses relating to industrial jobs and

18 economic development. I also participated in a study used to revise the financial policy

19 for the municipal utility in Kansas City, Kansas.

20   At BAI, I also have extensive experience working with large energy users to

21 distribute and critically evaluate responses to requests for proposals ("RFPs") for

22 electric, steam, and gas energy supply from competitive energy suppliers. These

23 analyses include the evaluation of gas supply and delivery charges, cogeneration

24 and/or combined cycle unit feasibility studies, and the evaluation of third-party

25 asset/supply management agreements. I have participated in rate cases on rate

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1   design and class cost of service for electric, natural gas, water and wastewater utilities.

2   I have also analyzed commodity pricing indices and forward pricing methods for third

3   party supply agreements, and have also conducted regional electric market price

4   forecasts.

5   In addition to our main office in St. Louis, the firm also has branch offices in

6   Phoenix, Arizona and Corpus Christi, Texas.

7   Q   HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?

8   A   Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of

9   service and other issues before the Federal Energy Regulatory Commission and

10   numerous state regulatory commissions including: Alaska, Arkansas, Arizona,

11   California, Colorado, Delaware, the District of Columbia, Florida, Georgia, Idaho,

12   Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan,

13   Minnesota, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Jersey,

14   New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South

15   Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington,

16   West Virginia, Wisconsin, Wyoming, and before the provincial regulatory boards in

17   Alberta, Nova Scotia, and Quebec, Canada. I have also sponsored testimony before

18   the Board of Public Utilities in Kansas City, Kansas; presented rate setting position

19   reports to the regulatory board of the municipal utility in Austin, Texas, and Salt River

20   Project, Arizona, on behalf of industrial customers; and negotiated rate disputes for

21   industrial customers of the Municipal Electric Authority of Georgia in the LaGrange,

22   Georgia district.

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1 Q **PLEASE   DESCRIBE   ANY   PROFESSIONAL   REGISTRATIONS   OR**

2 **ORGANIZATIONS TO WHICH YOU BELONG.**

3 A I earned the designation of Chartered Financial Analyst ("CFA") from the CFA Institute.

4 The CFA charter was awarded after successfully completing three examinations which

5 covered the subject areas of financial accounting, economics, fixed income and equity

6 valuation and professional and ethical conduct. I am a member of the CFA Institute's

7 Financial Analyst Society.

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BRUBAKER & ASSOCIATES, INC.

Southwestern Electric Power Company

Rate of Return
(December 31, 2021)

Line	Description	Amount (1)	Weight (2)	Cost (3)	Weighted Cost (4)
1	Long-Term Debt	$2,521,046,613	50.63%	4.18%	2.11%
2	Common Equity	$2,458,534,232	49.37%	9.15%	4.52%
3	**Total**	**$4,979,580,845**	**100.00%**		**6.63%**

Source:
Schedule K-1.

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

Price to Earnings (P/E) Ratio [1]

Line	Company	18-Year Average (1)	2020 [2] (2)	2019 [3] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)	2005 (17)	2004 (18)	2003 (19)	2002 (20)
1	ALLETE	17 76	16 40	24 70	17 23	23 05	18 63	15 06	17 23	18 59	15 88	14 66	15 98	16 08	13 95	14 78	16 55	17 91	25 21	N/A	N/A
2	Alliant Energy	16 47	22 50	21 20	16 60	20 60	22 30	18 07	16 60	15 28	14 50	14 45	12 47	13 86	13 43	15 08	16 82	12 59	14 00	12 69	19 93
3	Ameren Corp	16 25	22 70	22 10	16 71	20 60	18 29	17 55	16 71	16 52	13 35	11 93	9 66	9 26	14 21	17 45	19 39	16 72	16 28	13 51	15 78
4	American Electric Power	14 61	18 90	21 40	15 88	19 33	15 16	15 77	15 88	14 49	13 77	11 92	13 42	10 03	13 06	16 27	12 91	13 70	12 42	10 66	12 68
5	Avangrid, Inc	26 94	25 10	20 90	N/A	27 27	20 49	40 94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp	17 99	21 70	15 30	17 28	23 37	18 80	17 60	17 28	14 64	19 30	14 08	12 74	11 42	14 97	30 88	15 39	19 45	24 43	13 84	19 27
7	Black Hills	17 96	17 40	21 70	19 03	19 48	22 29	16 14	19 03	18 24	17 13	31 13	18 10	9 93	N/A	15 02	15 77	17 27	17 13	15 95	12 52
8	CenterPoint Energy	15 15	17 70	19 50	16 96	17 91	21 91	18 10	16 96	18 75	14 85	14 58	13 78	11 81	11 27	15 00	10 27	19 06	17 84	6 05	5 59
9	CMS Energy Corp	17 50	22 20	24 30	17 30	21 32	20 94	18 29	17 30	16 32	15 07	13 62	12 46	13 56	10 87	26 84	22 18	12 60	12 39	N/A	N/A
10	Consol Edison	15 87	20 30	21 80	15 90	19 77	18 80	15 59	15 90	14 72	15 39	15 08	13 30	12 55	12 29	13 78	15 49	15 13	18 21	14 30	13 28
11	Dominion Resources	18 71	25 00	NMF	22 97	22 17	21 33	22 14	22 97	19 25	18 91	17 27	14 35	12 74	13 78	20 63	15 98	24 89	15 07	15 24	12 05
12	DTE Energy	15 65	17 60	19 90	14 91	18 59	18 97	18 11	14 91	17 92	14 89	13 51	12 27	10 41	14 81	18 27	17 43	13 80	16 04	13 69	11 28
13	Duke Energy	17 34	21 70	17 80	17 91	19 93	21 25	18 22	17 91	17 45	17 46	13 76	12 69	13 32	17 28	16 13	N/A	N/A	N/A	N/A	N/A
14	Edison Int'l	13 89	NMF	14 30	13 05	17 23	17 92	14 77	13 05	12 70	9 71	11 81	10 32	9 72	12 36	16 03	12 99	11 74	37 59	6 97	7 78
15	El Paso Electric	18 26	33 70	23 20	16 38	21 78	18 66	18 33	16 38	15 88	14 47	12 60	10 72	10 79	11 89	15 26	16 92	26 72	22 03	18 26	22 99
16	Entergy Corp	13 84	18 40	16 50	12 89	15 01	10 92	12 53	12 89	13 21	11 22	9 06	11 57	11 98	16 56	19 30	14 28	16 28	15 09	13 77	11 53
17	Eversource Energy	18 17	24 00	22 10	17 92	19 47	18 69	18 11	17 92	16 94	19 86	15 35	13 42	11 96	13 66	18 75	27 07	19 76	20 77	13 35	16 07
18	Evergy, Inc	20 60	19 40	21 80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp	14 49	13 30	15 80	16 02	13 41	18 68	12 58	16 02	13 43	19 08	11 30	10 97	11 49	17 97	18 22	16 53	15 37	12 99	11 77	10 46
20	FirstEnergy Corp	19 02	21 40	23 60	39 79	11 41	15 91	17 02	39 79	13 06	21 10	22 39	11 75	13 02	15 64	15 59	14 23	16 07	14 13	22 47	12 95
21	Fortis Inc	19 62	20 30	19 20	24 29	16 81	21 60	18 00	24 29	19 97	20 12	18 79	18 22	16 36	17 48	21 14	17 68	N/A	N/A	N/A	N/A
22	Great Plains Energy	15 58	N/A	N/A	16 47	NMF	17 98	19 37	16 47	14 19	15 53	16 11	12 10	16 03	20 55	16 35	18 30	13 96	12 59	12 23	11 09
23	Hawaiian Elec	18 29	21 60	22 30	15 88	20 69	13 56	20 40	15 88	16 21	15 81	17 09	18 59	19 79	23 16	21 57	20 33	18 27	19 18	13 76	13 47
24	IDACORP, Inc	16 44	20 00	23 00	14 67	20 60	19 06	16 22	14 67	13 45	12 41	11 54	11 83	10 20	13 93	18 19	15 07	16 70	15 49	26 51	18 88
25	MGE Energy	19 07	25 90	28 40	17 19	29 36	24 90	20 28	17 19	17 01	17 23	15 82	14 98	15 14	14 22	15 01	15 88	22 40	17 98	17 55	15 96
26	NextEra Energy, Inc	17 33	31 80	26 80	17 25	21 65	20 71	16 89	17 25	16 57	14 43	11 54	10 83	13 42	14 48	18 90	13 65	17 88	13 65	17 88	13 60
27	NorthWestern Corp	17 05	18 90	19 80	16 24	17 85	17 19	18 36	16 24	16 86	15 72	12 62	12 90	11 54	13 87	21 74	25 95	17 09	N/A	N/A	N/A
28	OGE Energy	15 32	15 70	19 00	18 27	18 32	17 68	17 69	18 27	17 69	15 16	14 37	13 31	10 83	12 41	13 75	13 68	14 95	14 13	11 84	14 12
29	Otter Tail Corp	23 56	16 40	23 50	18 84	22 06	20 19	18 20	18 84	21 12	21 75	47 48	55 10	31 16	30 06	19 02	17 35	15 40	17 34	17 77	16 01
30	PG&E Corp	16 68	N/A	N/A	15 00	18 28	21 13	26 40	15 00	23 67	20 70	15 46	15 80	13 01	12 08	16 85	14 84	15 37	13 81	9 50	N/A
31	Pinnacle West Capital	15 84	16 00	20 50	15 89	19 28	18 74	16 04	15 89	15 27	14 35	14 60	12 57	13 74	16 07	14 93	13 69	19 24	15 80	13 96	14 43
32	PNM Resources	18 21	20 30	21 80	18 68	20 43	19 83	16 85	18 68	16 13	14 97	14 53	14 05	18 09	N/A	35 65	15 57	17 38	15 02	14 73	15 08
33	Portland General	17 33	29 40	21 90	15 32	20 03	19 06	17 71	15 32	16 88	13 98	12 37	12 00	14 40	16 30	11 94	23 35	N/A	N/A	N/A	N/A
34	PPL Corp	14 12	12 40	13 10	14 08	17 65	12 83	13 92	14 08	12 84	10 88	10 52	11 93	25 69	17 64	17 26	14 10	15 12	12 51	10 59	11 06
35	Public Serv Enterprise	13 56	15 80	15 90	12 61	16 31	15 35	12 41	12 61	13 50	12 79	10 40	10 37	10 04	13 65	16 54	17 81	16 74	14 26	10 58	10 00
36	SCANA Corp	13 94	N/A	N/A	13 68	14 46	16 80	14 67	13 68	14 43	14 80	13 67	12 93	11 63	12 67	14 96	15 42	14 44	13 57	13 05	12 17
37	Sempra Energy	15 69	19 00	23 00	21 87	24 33	24 37	19 73	21 87	19 68	14 89	11 77	12 60	10 09	11 80	14 01	11 50	11 79	8 65	8 96	8 19
38	Southern Co	15 97	18 50	18 00	16 04	15 48	17 76	15 85	16 04	16 19	16 97	15 85	14 90	13 52	16 13	15 95	16 19	15 92	14 68	14 83	14 63
39	Vectren Corp	17 22	N/A	N/A	19 98	23 54	19 18	17 92	19 98	20 66	15 02	15 83	15 10	12 89	16 79	15 33	18 92	15 11	17 57	14 80	14 16
40	WEC Energy Group	16 88	24 60	23 50	17 71	20 01	19 95	21 33	17 71	16 50	15 76	14 25	14 01	13 35	14 77	16 47	15 97	14 46	17 51	12 43	10 46
41	Westar Energy	15 56	N/A	N/A	15 36	23 40	21 59	18 45	15 36	14 04	13 43	14 78	12 96	14 95	16 96	14 10	12 18	14 79	17 44	10 78	14 02
42	Xcel Energy Inc	17 37	23 80	22 70	15 44	20 20	18 48	16 54	15 44	15 04	14 82	14 24	13 12	12 66	13 69	16 65	14 80	15 36	13 65	11 62	40 80
43	Average	16 79	20 83	20 84	17 39	19 81	18 97	18 00	17 39	16 38	15 69	15 30	14 28	13 56	15 18	17 74	16 47	16 52	16 57	13 70	14 31
44	Median	16 20	20 30	21 75	16 54	19 97	18 80	17 71	16 54	16 27	15 04	14 31	12 91	12 82	14 21	16 41	15 88	15 92	15 29	13 60	13 47

Sources
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019
[2] The Value Line Investment Survey, November 13, and December 11, 2020 and January 22, 2021
[3] The Value Line Investment Survey, January 24, February 14, and March 13, 2020

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

Market Price to Cash Flow (MP/CF) Ratio [1]

Line	Company	19-Year Average (1)	2020 [2/a] (2)	2019 [3/a] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)	2005 (17)	2004 (18)	2003 (19)	2002 (20)
1	ALLETE	9 49	9 17	11 13	10 16	10 95	8 26	7 49	8 80	9 15	8 18	7 91	8 04	8 51	9 29	10 30	11 06	11 54	11 46	N/A	N/A
2	Alliant Energy	7 93	10 32	10 48	9 71	13 21	10 67	8 86	8 40	7 52	7 50	7 21	6 59	6 23	7 49	7 92	8 00	5 09	5 52	4 76	5 20
3	Ameren Corp	7 13	8 98	9 20	7 95	8 38	7 44	6 87	6 95	6 61	5 48	5 02	4 23	4 25	6 35	7 69	8 57	8 57	8 24	6 74	7 96
4	American Electric Power	6 53	8 72	9 01	8 03	8 81	7 57	7 09	7 00	6 57	5 93	5 46	5 54	4 71	5 71	6 84	5 54	6 07	5 50	4 69	5 19
5	Avangrid, Inc	9 71	8 84	9 20	10 24	10 14	8 56	11 30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp	6 83	8 34	7 50	10 14	9 35	7 63	6 76	7 30	6 21	6 88	6 40	5 80	4 06	5 12	7 58	5 30	6 58	7 58	5 36	5 90
7	Black Hills	7 85	9 26	10 42	8 83	9 20	9 33	8 06	8 81	8 03	6 04	7 85	6 16	4 25	11 26	7 62	6 92	7 57	6 69	6 89	5 92
8	CenterPoint Energy	5 17	5 59	6 76	8 45	6 97	5 96	5 75	6 25	6 56	5 15	5 39	4 70	4 05	4 29	5 17	3 94	4 70	4 26	2 08	2 16
9	CMS Energy Corp	6 05	9 14	9 62	8 40	8 75	8 50	7 53	7 13	6 68	6 03	5 41	4 48	3 64	3 45	5 57	4 40	4 04	3 20	2 88	NMF
10	Consol Edison	8 28	8 27	9 78	8 73	9 64	9 39	7 96	7 89	7 77	8 31	8 15	7 39	6 72	6 89	8 31	8 65	8 59	9 31	7 90	7 64
11	Dominion Resources	9 65	10 62	12 82	10 94	11 35	11 59	11 84	12 27	10 88	9 92	9 45	8 12	6 98	8 27	8 65	7 81	10 09	7 68	7 51	6 53
12	DTE Energy	6 42	7 18	9 32	8 54	9 05	8 64	8 52	6 42	6 65	5 91	5 18	4 69	3 59	4 90	5 73	5 21	5 54	6 00	5 62	5 20
13	Duke Energy	7 59	7 51	7 62	7 65	8 40	8 57	7 95	8 12	8 11	9 53	6 56	6 01	5 96	7 13	7 16	N/A	N/A	N/A	N/A	N/A
14	Edison Int'l	5 95	7 70	7 42	13 46	7 05	6 77	5 92	5 68	5 46	4 59	4 22	4 11	3 95	5 63	7 01	5 87	5 61	6 84	2 82	2 96
15	El Paso Electric	6 38	11 07	9 20	9 43	8 54	7 46	6 47	6 33	6 19	5 78	5 16	4 31	3 98	4 95	6 44	6 25	6 67	4 65	3 90	4 39
16	Entergy Corp	5 75	6 16	5 97	4 92	4 66	4 01	4 11	4 21	4 03	4 23	3 90	4 66	5 68	7 96	9 21	7 16	8 76	7 12	6 84	5 57
17	Eversource Energy	7 12	11 69	10 47	9 16	10 36	10 14	10 12	10 14	8 08	9 30	6 99	4 97	4 61	4 12	6 18	6 02	3 55	3 78	2 85	2 75
18	Evergy, Inc	8 53	8 53	8 52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp	6 00	4 38	5 26	5 05	4 45	4 80	4 70	5 09	4 61	5 54	5 86	5 10	5 98	9 65	9 89	8 62	7 97	6 29	5 71	4 97
20	FirstEnergy Corp	6 83	11 27	10 41	8 84	4 76	5 12	5 38	7 43	6 15	7 42	7 33	4 49	4 91	7 58	7 89	7 53	6 04	5 15	6 90	5 10
21	Fortis Inc	8 31	9 01	9 27	7 97	8 23	10 46	7 29	9 25	7 93	8 09	8 38	7 40	6 76	7 58	9 18	7 89	N/A	N/A	N/A	N/A
22	Great Plains Energy	6 89		N/A	N/A	14 62	8 63	6 66	6 45	5 73	6 09	5 74	4 49	5 06	7 71	7 13	7 68	6 70	6 52	5 92	5 14
23	Hawaiian Elec	8 13	9 78	9 51	8 34	9 21	7 44	9 25	7 64	8 15	8 05	7 73	7 81	6 95	9 10	7 95	8 47	8 29	8 44	6 12	6 20
24	IDACORP, Inc	8 52	11 14	12 79	11 72	11 56	10 95	9 37	8 59	7 78	7 05	6 64	6 52	5 31	7 10	8 23	7 73	7 55	7 15	7 27	7 53
25	MGE Energy	11 46	13 88	15 04	15 04	17 33	15 66	12 53	11 42	11 20	10 77	9 48	9 05	8 40	8 42	9 23	9 30	11 73	11 04	10 20	8 09
26	NextEra Energy, Inc	10 19	53 27	12 26	10 77	11 61	9 24	7 93	7 98	7 60	7 58	5 98	5 33	6 09	7 34	9 02	6 51	6 71	6 71	5 97	5 77
27	NorthWestern Corp	7 79	9 24	9 44	8 19	8 82	8 65	8 99	9 01	7 61	6 85	5 89	5 79	5 05	5 57	8 45	9 39	7 31	8 13	N/A	N/A
28	OGE Energy	7 94	8 57	10 42	9 36	10 52	9 03	9 25	10 65	9 93	7 35	7 48	6 61	5 37	6 43	7 58	7 50	7 04	6 73	5 62	5 39
29	Otter Tail Corp	9 48	10 34	12 60	11 58	11 09	9 38	9 04	9 45	9 58	8 43	9 04	8 07	8 01	11 65	9 53	8 66	8 18	9 01	8 13	8 33
30	PG&E Corp	5 55	N/A	N/A	- 5 65	7 09	7 26	7 24	5 65	6 84	5 86	5 32	5 42	4 71	4 61	5 84	5 28	5 07	5 13	4 05	14 69
31	Pinnacle West Capital	6 22	7 11	8 21	7 09	8 73	7 89	6 91	7 03	6 85	6 34	5 80	5 65	3 84	4 19	4 76	4 48	7 48	5 88	4 80	5 21
32	PNM Resources	6 83	7 36	7 99	7 57	7 40	7 64	6 95	7 48	6 47	5 80	4 94	4 58	4 53	7 10	10 67	7 50	7 62	6 84	5 55	5 72
33	Portland General	5 93	7 61	7 31	6 56	7 45	7 12	6 73	5 49	6 06	5 08	4 86	4 13	4 63	4 81	5 34	5 74	N/A	N/A	N/A	N/A
34	PPL Corp	7 45	6 70	8 11	7 02	10 11	8 37	8 73	7 32	6 59	5 87	5 98	7 46	8 82	9 17	8 90	7 58	7 57	6 49	5 41	5 30
35	Public Serv Enterprise	7 51	7 63	8 63	9 48	8 67	8 56	6 66	6 48	6 40	6 40	6 03	6 04	6 20	8 46	9 83	8 41	8 59	7 17	6 79	6 24
36	SCANA Corp	7 09	N/A	N/A	N/A	8 26	9 59	8 33	7 50	7 49	7 40	6 75	6 52	5 88	6 38	7 15	7 03	5 40	6 86	6 59	6 36
37	Sempra Energy	8 07	9 96	11 69	10 10	10 65	10 88	9 99	10 77	9 37	7 26	6 13	6 53	6 07	7 07	8 61	7 22	6 96	5 16	4 85	4 00
38	Southern Co	8 16	8 20	8 54	7 05	7 49	8 83	8 23	8 42	8 30	8 75	8 22	7 79	7 08	8 18	8 62	8 47	8 41	8 28	8 28	7 83
39	Vectren Corp	7 08		N/A	N/A	10 32	8 60	7 82	7 57	6 82	5 79	5 81	5 58	5 24	6 90	6 53	7 37	7 06	7 63	7 27	6 92
40	WEC Energy Group	8 86	12 96	12 66	10 82	11 04	10 95	12 90	10 27	9 58	9 24	8 43	8 15	6 87	7 57	7 84	7 27	6 40	6 27	4 91	4 27
41	Westar Energy	6 91		N/A	N/A	10 87	10 86	9 05	7 93	7 23	6 71	6 67	5 51	5 32	7 09	6 88	5 81	7 00	6 54	4 24	2 94
42	Xcel Energy Inc	6 76	9 32	9 18	7 90	8 50	8 10	7 62	7 31	7 00	6 85	6 47	6 28	5 43	5 71	6 51	5 54	5 62	5 31	4 27	5 16
43	Average	7 47	10 13	9 56	8 64	9 36	8 65	8 05	7 85	7 39	6 98	6 53	6 00	5 59	6 95	7 72	7 12	7 13	6 77	5 70	5 85
44	Median	7 29	8 98	9 27	8 73	9 05	8 57	7 93	7 54	7 12	6 85	6 27	5 80	5 35	7 09	7 76	7 37	7 04	6 71	5 62	5 52

Sources

[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019

[2] The Value Line Investment Survey, November 13, and December 11, 2020 and January 22, 2021

[3] The Value Line Investment Survey, January 24, February 14, and March 13, 2020

Note

[a] Based on the average of the high and low price and the projected Cash Flow per share

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

Market Price to Book Value (MP/BV) Ratio [1]

Line	Company	16-Year Average (1)	2020 [2/b] (2)	2019 [3/b] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)	2005 (17)
1	ALLETE	1 60	1 45	1 87	1 79	1 78	1 53	1 37	1 42	1 51	1 34	1 35	1 28	1 15	1 55	1 89	2 09	2 22
2	Alliant Energy	1 73	2 08	2 26	2 16	2 38	2 17	1 86	1 86	1 70	1 57	1 46	1 31	1 04	1 33	1 67	1 52	1 33
3	Ameren Corp	1 49	2 05	2 20	1 95	1 93	1 67	1 46	1 45	1 29	1 18	0 90	0 83	0 78	1 25	1 60	1 62	1 68
4	American Electric Power	1 59	2 05	2 12	1 82	1 88	1 81	1 55	1 54	1 40	1 31	1 23	1 23	1 08	1 48	1 85	1 56	1 57
5	Avangrid, Inc	0 91	0 94	1 01	1 02	0 93	0 83	0 72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp	1 33	1 45	1 55	1 88	1 73	1 57	1 36	1 33	1 25	1 21	1 19	1 07	0 94	1 11	1 29	1 30	1 13
7	Black Hills	1 52	1 66	1 87	1 61	2 06	1 94	1 59	1 79	1 62	1 21	1 14	1 07	0 83	1 22	1 57	1 47	1 63
8	CenterPoint Energy	2 34	1 79	2 13	2 18	2 59	2 73	2 43	2 27	2 30	1 99	1 87	1 96	1 77	2 49	3 13	2 75	3 06
9	CMS Energy Corp	2 08	2 97	3 20	2 81	2 93	2 72	2 43	2 26	2 09	1 91	1 66	1 48	1 10	1 23	1 82	1 42	1 32
10	Consol Edison	1 41	1 42	1 57	1 49	1 63	1 58	1 42	1 34	1 38	1 47	1 38	1 22	1 08	1 17	1 47	1 47	1 52
11	Dominion Resources	2 61	2 55	2 19	2 40	2 94	3 15	3 34	3 55	2 97	2 84	2 37	2 01	1 80	2 42	2 69	2 07	2 50
12	DTE Energy	1 49	1 63	1 99	1 91	2 01	1 82	1 65	1 62	1 51	1 35	1 20	1 16	0 89	1 10	1 35	1 29	1 39
13	Duke Energy	1 22	1 37	1 46	1 33	1 41	1 35	1 29	1 28	1 19	1 12	1 11	1 00	0 91	1 06	1 15	N/A	N/A
14	Edison Int'l	1 67	1 67	1 71	1 97	2 17	1 92	1 76	1 68	1 57	1 53	1 24	1 07	1 04	1 56	2 05	1 80	1 93
15	El Paso Electric	1 63	2 09	2 06	1 94	1 87	1 68	1 48	1 52	1 49	1 59	1 64	1 17	0 98	1 33	1 69	1 71	1 76
16	Entergy Corp	1 75	1 97	2 00	1 74	1 76	1 67	1 40	1 33	1 21	1 31	1 35	1 62	1 66	2 44	2 65	1 89	2 01
17	Eversource Energy	1 48	1 86	1 99	1 68	1 73	1 64	1 53	1 47	1 38	1 28	1 50	1 31	1 12	1 31	1 60	1 22	1 05
18	Evergy, Inc	1 58	1 55	1 62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp	2 16	1 17	1 42	1 31	1 20	1 20	1 14	1 28	1 17	1 46	1 95	2 07	2 57	4 39	4 79	3 89	3 60
20	FirstEnergy Corp	2 02	3 18	3 03	2 67	3 53	2 37	1 16	1 15	1 28	1 44	1 33	1 36	1 54	2 52	2 23	1 92	1 64
21	Fortis Inc	1 46	1 33	1 38	1 24	1 41	1 26	1 33	1 35	1 45	1 33	1 59	1 56	1 33	1 48	1 63	1 96	N/A
22	Great Plains Energy	1 21		N/A	N/A	1 33	1 17	1 12	1 11	1 02	0 96	0 93	0 87	0 80	1 11	1 66	1 77	1 86
23	Hawaiian Elec	1 67	2 01	2 02	1 76	1 76	1 63	1 71	1 49	1 54	1 62	1 54	1 44	1 16	1 61	1 57	2 01	1 78
24	IDACORP, Inc	1 45	1 80	2 08	1 96	1 94	1 76	1 54	1 45	1 33	1 19	1 17	1 13	0 92	1 09	1 26	1 37	1 22
25	MGE Energy	2 10	2 40	2 79	2 59	2 88	2 60	2 10	2 10	2 06	1 92	1 75	1 65	1 54	1 62	1 75	1 83	2 09
26	NextEra Energy, Inc	2 67	12 28	2 74	2 32	2 35	2 30	2 09	2 15	1 93	1 74	1 55	1 49	1 70	2 06	2 34	1 80	1 93
27	NorthWestern Corp	1 47	1 53	1 67	1 48	1 64	1 68	1 60	1 54	1 56	1 42	1 35	1 22	1 07	1 15	1 48	1 65	1 42
28	OGE Energy	1 85	1 91	2 03	1 75	1 82	1 73	1 79	2 22	2 24	1 94	1 90	1 70	1 37	1 52	1 98	1 91	1 80
29	Otter Tail Corp	1 85	2 11	2 66	2 49	2 33	1 90	1 78	1 90	1 96	1 58	1 35	1 19	1 18	1 71	1 93	1 76	1 74
30	PG&E Corp	1 60	N/A	N/A	1 70	1 71	1 69	1 57	1 39	1 38	1 41	1 46	1 56	1 41	1 50	1 94	1 83	1 84
31	Pinnacle West Capital	1 43	1 65	1 90	1 74	1 91	1 72	1 52	1 44	1 47	1 39	1 25	1 14	0 95	1 00	1 26	1 26	1 25
32	PNM Resources	1 28	1 75	2 23	1 83	1 84	1 56	1 33	1 21	1 09	0 98	0 80	0 69	0 56	0 66	1 23	1 21	1 45
33	Portland General	1 34	1 64	1 77	1 56	1 69	1 56	1 42	1 37	1 28	1 14	1 09	0 94	0 92	1 05	1 32	1 36	N/A
34	PPL Corp	2 09	1 57	1 84	1 81	2 40	2 46	2 24	1 64	1 55	1 58	1 47	1 61	2 10	3 19	3 05	2 43	2 50
35	Public Serv Enterprise	1 89	1 54	1 92	1 81	1 68	1 67	1 58	1 57	1 44	1 46	1 59	1 67	1 78	2 58	2 99	2 46	2 45
36	SCANA Corp	1 51	N/A	N/A	N/A	1 65	1 74	1 47	1 48	1 48	1 36	1 33	1 20	1 45	1 62	1 64	1 72	
37	Sempra Energy	1 80	1 73	2 13	2 06	2 24	2 00	2 17	2 20	1 84	1 53	1 28	1 35	1 32	1 60	1 87	1 70	1 73
38	Southern Co	2 05	2 13	2 05	1 89	2 07	2 01	1 99	2 02	2 04	2 15	1 99	1 83	1 73	2 12	2 24	2 23	2 35
39	Vectren Corp	1 83		N/A	N/A	2 75	2 29	2 11	2 08	1 82	1 57	1 53	1 41	1 34	1 64	1 74	1 77	1 82
40	WEC Energy Group	1 97	2 68	2 58	2 11	2 10	2 09	1 82	2 34	2 21	2 05	1 81	1 65	1 40	1 57	1 77	1 71	1 62
41	Westar Energy	1 37		N/A	N/A	1 94	1 95	1 49	1 44	1 33	1 26	1 20	1 10	0 93	1 10	1 36	1 30	1 41
42	Xcel Energy Inc	1 63	2 26	2 26	1 97	2 06	1 88	1 66	1 55	1 50	1 51	1 41	1 32	1 19	1 30	1 53	1 40	1 38
43	Average	1 72	2 14	2 03	1 88	2 00	1 85	1 67	1 68	1 60	1 51	1 43	1 35	1 25	1 63	1 90	1 78	1 80
44	Median	1 61	1 79	2 02	1 83	1 91	1 74	1 57	1 53	1 49	1 47	1 37	1 31	1 15	1 48	1 71	1 71	1 73

Sources

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[2] The Value Line Investment Survey, November 13, and December 11, 2020 and January 22, 2021

[3] The Value Line Investment Survey, January 24, February 14, and March 13, 2020
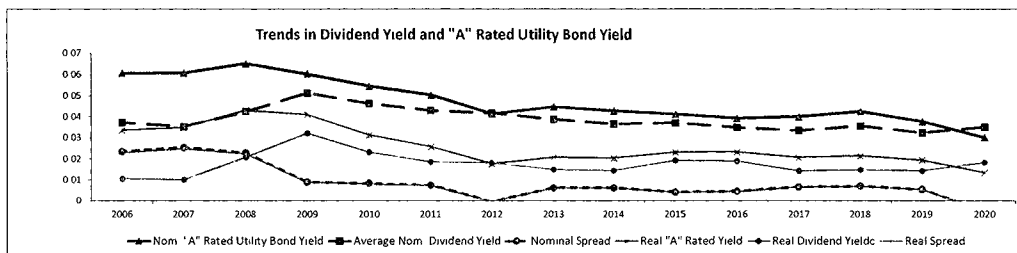
Notes

[b] Based on the average of the high and low price and the projected Book Value per share

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

Line	Company	15-Year Average (1)	2020 ³ᴿᴰ (2)	2019 ³ᴿᴰ (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
														Dividend Yield¹			
1	ALLETE	3 93%	3 72%	2 92%	2 99%	2 97%	3 56%	3 97%	3 92%	3 89%	4 49%	4 58%	5 03%	5 79%	4 37%	3 60%	3 16%
2	Alliant Energy	3 71%	3 10%	2 95%	3 20%	3 07%	3 21%	3 60%	3 53%	3 74%	4 07%	4 28%	4 61%	5 73%	4 10%	3 13%	3 32%
3	Ameren Corp	4 38%	2 73%	2 67%	3 04%	3 12%	3 50%	3 96%	4 02%	4 61%	4 97%	5 28%	5 76%	5 98%	6 21%	4 88%	4 93%
4	American Electric Power	4 04%	3 34%	3 22%	3 60%	3 42%	3 54%	3 80%	3 83%	4 23%	4 58%	4 96%	4 90%	5 50%	4 20%	3 40%	4 06%
5	Avangrid Inc	3 77%	3 79%	3 51%	3 49%	3 79%	4 26%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp	3 74%	3 81%	3 47%	2 93%	3 14%	3 39%	3 97%	3 99%	4 51%	4 55%	4 54%	4 76%	4 49%	3 39%	2 68%	2 52%
7	Black Hills	3 73%	3 21%	2 87%	3 31%	2 75%	2 87%	3 55%	2 84%	3 19%	4 39%	4 64%	4 79%	6 17%	4 21%	3 40%	3 79%
8	CenterPoint Energy	4 42%	3 79%	3 09%	4 09%	4 79%	4 70%	5 06%	3 94%	3 57%	4 04%	4 27%	5 29%	6 37%	4 98%	3 87%	4 39%
9	CMS Energy Corp	3 24%	2 83%	2 70%	3 03%	2 88%	2 99%	3 36%	3 59%	3 76%	4 16%	4 25%	3 98%	3 97%	2 69%	1 16%	N/A
10	Consol Edison	4 41%	3 90%	3 52%	3 68%	3 40%	3 62%	4 12%	4 38%	4 25%	4 07%	4 46%	5 16%	5 99%	5 67%	4 84%	5 04%
11	Dominion Resources	4 08%	4 64%	4 85%	4 72%	3 88%	3 82%	3 65%	3 43%	3 78%	4 06%	4 13%	4 41%	5 20%	3 77%	3 32%	3 60%
12	DTE Energy	4 15%	3 98%	3 19%	3 34%	3 15%	3 34%	3 53%	3 54%	3 84%	4 19%	4 68%	4 75%	6 29%	5 24%	4 36%	4 86%
13	Duke Energy	4 73%	4 61%	4 17%	4 54%	4 15%	4 26%	4 34%	4 26%	4 45%	4 68%	5 21%	5 71%	6 25%	5 16%	4 44%	N/A
14	Edison Int'l	3 15%	4 21%	3 82%	3 84%	2 87%	2 81%	2 83%	2 62%	2 85%	2 97%	3 37%	3 66%	3 95%	2 69%	2 21%	2 58%
15	El Paso Electric	2 69%	2 46%	2 48%	2 55%	2 49%	2 75%	3 13%	2 97%	2 99%	2 97%	2 11%	N/A	N/A	N/A	N/A	N/A
16	Entergy Corp	4 05%	3 55%	3 57%	4 41%	4 49%	4 55%	4 59%	4 47%	5 07%	4 91%	4 85%	4 20%	3 97%	2 92%	2 39%	2 82%
17	Eversource Energy	3 28%	2 84%	2 86%	3 32%	3 14%	3 22%	3 34%	3 40%	3 48%	3 52%	3 23%	3 64%	4 16%	3 25%	2 60%	3 27%
18	Evergy Inc	3 31%	3 48%	3 15%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp	3 85%	3 83%	3 07%	3 32%	3 51%	3 75%	3 86%	3 69%	4 69%	5 73%	4 96%	4 95%	4 26%	2 78%	2 48%	2 83%
20	FirstEnergy Corp	4 32%	3 69%	3 58%	5 17%	4 62%	4 31%	4 23%	4 26%	4 26%	4 90%	5 23%	5 76%	5 09%	3 21%	3 12%	3 40%
21	Fortis Inc	3 69%	3 90%	3 69%	4 07%	3 69%	3 80%	3 76%	3 88%	3 84%	3 64%	3 58%	3 80%	4 21%	3 76%	3 01%	2 79%
22	Great Plains Energy	4 52%		N/A	N/A	3 58%	3 64%	3 76%	3 62%	3 84%	4 08%	4 15%	4 49%	5 03%	6 96%	5 49%	5 60%
23	Hawaiian Elec	4 52%	3 03%	3 10%	3 54%	3 65%	3 99%	4 05%	4 76%	4 72%	4 70%	5 04%	5 51%	6 89%	5 00%	5 18%	4 59%
24	IDACORP Inc	3 20%	2 98%	2 52%	2 61%	2 58%	2 77%	3 06%	3 12%	3 21%	3 28%	3 10%	3 44%	4 46%	3 95%	3 55%	3 39%
25	MGE Energy	3 13%	3 22%	2 01%	2 16%	1 95%	2 23%	2 78%	2 78%	2 91%	3 26%	3 63%	3 98%	4 36%	4 24%	4 14%	4 25%
26	NextEra Energy, Inc	2 93%	0 61%	2 42%	2 68%	2 79%	2 91%	3 01%	3 02%	3 30%	3 65%	3 96%	3 90%	N/A	N/A	N/A	N/A
27	NorthWestern Corp	4 07%	3 82%	3 43%	3 86%	3 52%	3 43%	3 61%	3 30%	3 66%	4 17%	4 51%	4 93%	5 75%	5 38%	4 09%	3 65%
28	OGE Energy	3 68%	4 55%	3 60%	3 98%	3 61%	3 87%	3 51%	2 63%	2 48%	2 94%	3 06%	3 68%	4 96%	4 52%	3 77%	3 99%
29	Otter Tail Corp	4 10%	3 37%	2 70%	2 92%	3 12%	3 87%	4 33%	4 14%	4 11%	5 21%	5 57%	5 68%	5 38%	3 63%	3 46%	3 92%
30	PG&E Corp	3 70%	N/A	N/A	N/A	2 42%	3 22%	3 45%	3 96%	4 20%	4 25%	4 24%	4 08%	4 26%	4 01%	3 07%	3 22%
31	Pinnacle West Capital	4 48%	3 90%	3 35%	3 55%	3 10%	3 46%	3 88%	4 09%	3 98%	5 32%	4 81%	5 43%	6 76%	6 17%	4 75%	4 67%
32	PNM Resources	3 24%	3 00%	2 55%	2 79%	2 53%	2 69%	2 90%	2 78%	2 99%	2 99%	3 19%	4 09%	4 78%	4 85%	3 36%	3 21%
33	Portland General	3 67%	3 34%	2 97%	3 27%	2 92%	3 06%	3 27%	3 34%	3 67%	4 11%	4 37%	5 20%	5 36%	4 28%	3 34%	2 54%
34	PPL Corp	4 54%	6 05%	5 15%	5 61%	4 24%	4 25%	4 55%	4 45%	4 81%	5 07%	5 10%	5 12%	4 51%	3 70%	2 69%	3 41%
35	Public Serv Enterprise	3 82%	4 05%	3 30%	3 49%	3 74%	3 78%	3 81%	3 92%	4 35%	4 55%	4 24%	4 30%	4 30%	3 26%	2 73%	3 47%
36	SCANA Corp	4 37%	N/A	N/A	N/A	4 03%	3 29%	3 90%	4 05%	4 15%	4 25%	4 78%	4 93%	5 67%	4 92%	4 29%	4 21%
37	Sempra Energy	2 97%	3 35%	2 97%	3 20%	2 92%	2 92%	2 71%	2 61%	3 03%	3 71%	3 65%	3 08%	3 23%	2 62%	2 08%	2 47%
38	Southern Co	4 70%	4 49%	4 57%	5 27%	4 63%	4 42%	4 78%	4 69%	4 61%	4 29%	4 63%	5 13%	5 52%	4 58%	4 39%	4 52%
39	Vectren Corp	4 38%		N/A	N/A	2 79%	3 31%	3 60%	3 62%	4 15%	4 82%	5 06%	5 53%	5 85%	4 79%	4 53%	4 52%
40	WEC Energy Group	3 04%	2 85%	2 65%	3 38%	3 31%	3 35%	3 49%	3 40%	3 49%	3 24%	3 55%	2 97%	3 16%	2 41%	2 14%	2 18%
41	Westar Energy	4 37%		N/A	N/A	3 00%	2 90%	3 73%	3 88%	4 27%	4 57%	4 84%	5 32%	6 27%	5 22%	4 16%	4 28%
42	Xcel Energy Inc	3 84%	2 80%	2 85%	3 25%	3 10%	3 33%	3 69%	3 83%	3 86%	3 90%	4 20%	4 54%	5 14%	4 70%	4 05%	4 40%
43	Average	3 87%	3 51%	3 23%	3 56%	3 34%	3 49%	3 71%	3 66%	3 87%	4 18%	4 30%	4 63%	5 13%	4 24%	3 53%	3 72%
44	Median	3 85%	3 55%	3 10%	3 36%	3 15%	3 43%	3 71%	3 76%	3 85%	4 18%	4 42%	4 76%	5 17%	4 22%	3 43%	3 62%
45	20-Yr Treasury Yields⁴	3 26%	1 35%	2 40%	3 02%	2 65%	2 23%	2 55%	3 07%	3 12%	2 54%	3 62%	4 03%	4 11%	4 36%	4 91%	4 99%
46	20-Yr TIPS⁴	1 15%	0 30%	0 60%	0 94%	0 75%	0 66%	0 78%	0 87%	0 75%	0 21%	1 19%	1 73%	2 21%	2 19%	2 38%	2 31%
47	Implied Inflation⁵	2 09%	1 65%	1 79%	2 06%	1 89%	1 56%	1 75%	2 19%	2 35%	2 33%	2 40%	2 26%	1 85%	2 13%	2 49%	2 62%
48	Real Dividend Yield⁵	1 75%	1 82%	1 42%	1 47%	1 42%	1 90%	1 93%	1 44%	1 49%	1 81%	1 86%	2 32%	3 22%	2 07%	1 01%	1 07%
	A-Rated Utility																
49	Nominal "A" Rated Yield⁵	4 75%	3 02%	3 77%	4 25%	4 00%	3 93%	4 12%	4 28%	4 48%	4 13%	5 04%	5 46%	6 04%	6 53%	6 07%	6 07%
50	Real "A" Rated Yield	2 60%	1 33%	1 94%	2 14%	2 07%	2 34%	2 33%	2 04%	2 08%	1 76%	2 58%	3 13%	4 11%	4 31%	3 49%	3 36%
	Baa Rated Utility																
51	Nominal "Baa" Rated Yield	5 31%	3 66%	4 19%	4 67%	4 38%	4 67%	5 03%	4 80%	4 98%	4 83%	5 57%	5 96%	7 06%	7 25%	6 33%	6 32%
52	Real "Baa" Rated Yield	3 16%	1 97%	2 36%	2 55%	2 44%	3 07%	3 22%	2 55%	2 57%	2 44%	3 09%	3 62%	5 11%	5 01%	3 74%	3 60%
	Spreads (A Rated Utility Bond - Stock)																
53	Nominal Spread⁴	0 87%	-0 49%	0 53%	0 69%	0 66%	0 44%	0 40%	0 61%	0 61%	-0 05%	0 74%	0 84%	0 91%	2 29%	2 54%	2 35%
54	Real Spread⁴	0 85%	-0 48%	0 52%	0 68%	0 65%	0 44%	0 40%	0 60%	0 59%	-0 05%	0 72%	0 82%	0 89%	2 24%	2 48%	2 29%
	Spreads (Baa-Rated Utility Bond - Stock)																
55	Nominal Spread⁵	1 44%	0 15%	0 96%	1 11%	1 04%	1 19%	1 31%	1 14%	1 11%	0 65%	1 26%	1 34%	1 92%	3 00%	2 80%	2 60%
56	Real Spread⁵	1 41%	0 15%	0 94%	1 09%	1 02%	1 17%	1 29%	1 11%	1 09%	0 63%	1 23%	1 31%	1 89%	2 94%	2 73%	2 53%
	Spreads (Treasury Bond - Stock)																
57	Nominal⁵	-0 61%	-2 15%	-0 83%	-0 54%	-0 69%	-1 26%	-1 17%	-0 59%	0 75%	-1 64%	-0 68%	-0 60%	-1 02%	0 12%	1 38%	1 27%
58	Real⁵	-0 60%	-2 12%	-0 82%	-0 53%	-0 68%	-1 24%	-1 15%	-0 58%	-0 73%	-1 60%	-0 67%	-0 58%	-1 01%	0 12%	1 34%	1 24%

Trends in Dividend Yield and "A" Rated Utility Bond Yield

—▲—Nom 'A' Rated Utility Bond Yield —■—Average Nom Dividend Yield —○— Nominal Spread —×—Real "A" Rated Yield —●—Real Dividend Yield ——— Real Spread

Sources
¹ The Value Line Investment Survey Investment Analyzer Software downloaded on June 25 2019
² The Value Line Investment Survey, November 13 and December 11 2020 and January 22 2021
³ The Value Line Investment Survey January 24 February 14 and March 13 2020
⁴ St Louis Federal Reserve Economic Research http //research stlouisfed org
⁵ www moodys com, Bond Yields and Key Indicators through December 31 2020
Notes
ᵃ Based on the average of the high and low price and the projected Dividends Declared per share published in the Value Line Investment Survey
ᵇ Line 47 = (1 + Line 45) / (1 + Line 46) 1
ᶜ Line 48 = (1 + Line 43) / (1 + Line 47) - 1
ᵈ The spread being measured here is the nominal A-rated utility bond yield over the average nominal utility dividend yield (Line 49 Line 43)
ᵉ The spread being measured here is the real A rated utility bond yield over the average real utility dividend yield Line 50 - Line 48)
ᶠ The spread being measured here is the nominal 20-Year Treasury yield over the average nominal utility dividend yield (Line 45 - Line 43)
ᵍ The spread being measured here is the real 20 Year TIPS yield over the average real utility dividend yield Line 48 - Line 46)

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

Line	Company	15-Year Average (1)	2020[2] (2)	2019[3] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
								Dividend per Share[1]									
1	ALLETE	1 94	2 47	2 35	2 24	2 14	2 08	2 02	1 96	1 90	1 84	1 78	1 76	1 76	1 72	1 64	1 45
2	Alliant Energy	1 00	1 52	1 42	1 34	1 26	1 18	1 10	1 02	0 94	0 90	0 85	0 79	0 75	0 70	0 64	0 58
3	Ameren Corp	1 87	2 00	1 92	1 85	1 78	1 72	1 66	1 61	1 60	1 60	1 56	1 54	1 54	2 54	2 54	2 54
4	American Electric Power	2 04	2 84	2 71	2 53	2 39	2 27	2 15	2 03	1 95	1 88	1 85	1 71	1 64	1 64	1 58	1 50
5	Avangrid, Inc	1 74	1 76	1 76	1 74	1 73	1 73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp	1 15	1 62	1 55	1 49	1 43	1 37	1 32	1 27	1 22	1 16	1 10	1 00	0 81	0 69	0 60	0 57
7	Black Hills	1 62	2 17	2 05	1 93	1 81	1 68	1 62	1 56	1 52	1 48	1 46	1 44	1 42	1 40	1 37	1 32
8	CenterPoint Energy	0 87	0 74	0 86	1 12	1 35	1 03	0 99	0 95	0 83	0 81	0 79	0 78	0 76	0 73	0 68	0 60
9	CMS Energy Corp	1 00	1 63	1 53	1 43	1 33	1 24	1 16	1 08	1 02	0 96	0 84	0 66	0 50	0 36	0 20	N/A
10	Consol Edison	2 56	3 06	2 96	2 86	2 76	2 68	2 60	2 52	2 46	2 42	2 40	2 38	2 36	2 34	2 32	2 30
11	Dominion Resources	2 37	3 45	3 67	3 34	3 04	2 80	2 59	2 40	2 25	2 11	1 97	1 83	1 75	1 58	1 46	1 38
12	DTE Energy	2 76	4 12	3 85	3 59	3 36	3 06	2 84	2 69	2 59	2 42	2 32	2 18	2 12	2 12	2 12	2 08
13	Duke Energy	3 18	3 82	3 75	3 64	3 49	3 36	3 24	3 15	3 09	3 03	2 97	2 91	2 82	2 70	2 58	N/A
14	Edison Int'l	1 66	2 58	2 48	2 43	2 23	1 98	1 73	1 48	1 37	1 31	1 29	1 27	1 25	1 23	1 18	1 10
15	El Paso Electric	1 20	1 62	1 52	1 42	1 32	1 23	1 17	1 11	1 05	0 97	0 66	N/A	N/A	N/A	N/A	N/A
16	Entergy Corp	3 23	3 74	3 86	3 58	3 50	3 42	3 34	3 32	3 32	3 32	3 32	3 24	3 00	3 00	2 58	2 16
17	Eversource Energy	1 44	2 27	2 14	2 02	1 90	1 78	1 67	1 57	1 47	1 32	1 10	1 03	0 95	0 83	0 78	0 73
18	Evergy, Inc	1 99	2 05	1 93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp	1 65	1 53	1 45	1 38	1 31	1 26	1 24	1 24	1 46	2 10	2 10	2 10	2 10	2 05	1 82	1 64
20	FirstEnergy Corp	1 81	1 56	1 53	1 82	1 44	1 44	1 44	1 44	1 65	2 20	2 20	2 20	2 20	2 20	2 05	1 85
21	Fortis Inc	1 32	1 97	1 86	1 75	1 65	1 55	1 43	1 30	1 25	1 21	1 17	1 12	1 04	1 00	0 82	0 67
22	Great Plains Energy	1 11	N/A	N/A	N/A	1 10	1 06	1 00	0 94	0 88	0 86	0 84	0 83	0 83	1 66	1 66	1 66
23	Hawaiian Elec	1 25	1 32	1 28	1 24	1 24	1 24	1 24	1 24	1 24	1 24	1 24	1 24	1 24	1 24	1 24	1 24
24	IDACORP, Inc	1 72	2 72	2 56	2 40	2 24	2 08	1 92	1 76	1 57	1 37	1 20	1 20	1 20	1 20	1 20	1 20
25	MGE Energy	1 12	1 45	1 38	1 32	1 26	1 21	1 16	1 11	1 07	1 04	1 01	0 99	0 97	0 96	0 94	0 93
26	NextEra Energy, Inc	0 74	1 40	1 25	1 11	0 98	0 87	0 77	0 73	0 66	0 60	0 55	0 50	0 47	0 45	0 41	0 38
27	NorthWestern Corp	1 70	2 40	2 30	2 20	2 10	2 00	1 92	1 60	1 52	1 48	1 44	1 36	1 34	1 32	1 28	1 24
28	OGE Energy	0 99	1 58	1 51	1 40	1 27	1 16	1 05	0 95	0 85	0 80	0 76	0 73	0 71	0 70	0 68	0 67
29	Otter Tail Corp	1 24	1 48	1 40	1 34	1 28	1 25	1 23	1 21	1 19	1 19	1 19	1 19	1 19	1 19	1 17	1 15
30	PG&E Corp	1 70	N/A	N/A	N/A	1 55	1 93	1 82	1 82	1 82	1 82	1 82	1 82	1 68	1 56	1 44	1 32
31	Pinnacle West Capital	2 44	3 23	3 04	2 87	2 70	2 56	2 44	2 33	2 23	2 67	2 10	2 10	2 10	2 10	2 10	2 03
32	PNM Resources	0 81	1 25	1 18	1 09	0 99	0 88	0 80	0 76	0 68	0 58	0 50	0 50	0 50	0 61	0 91	0 86
33	Portland General	1 15	1 59	1 52	1 43	1 34	1 26	1 18	1 12	1 10	1 08	1 06	1 04	1 01	0 97	0 93	0 68
34	PPL Corp	1 45	1 66	1 65	1 64	1 58	1 52	1 50	1 49	1 47	1 44	1 40	1 40	1 38	1 34	1 22	1 10
35	Public Serv Enterprise	1 50	1 96	1 88	1 80	1 72	1 64	1 56	1 48	1 44	1 42	1 37	1 37	1 33	1 29	1 17	1 14
36	SCANA Corp	2 00	N/A	N/A	N/A	2 45	2 30	2 18	2 10	2 03	1 98	1 94	1 90	1 88	1 84	1 76	1 68
37	Sempra Energy	2 48	4 18	3 87	3 58	3 29	3 02	2 80	2 64	2 52	2 40	1 92	1 56	1 56	1 37	1 24	1 20
38	Southern Co	2 02	2 54	2 46	2 38	2 30	2 22	2 15	2 08	2 01	1 94	1 87	1 80	1 73	1 66	1 60	1 54
39	Vectren Corp	1 42	N/A	N/A	N/A	1 71	1 62	1 54	1 46	1 43	1 41	1 41	1 39	1 37	1 35	1 31	1 27	1 23
40	WEC Energy Group	1 41	2 53	2 36	2 21	2 08	1 98	1 74	1 56	1 45	1 20	1 04	0 80	0 68	0 54	0 50	0 46
41	Westar Energy	1 30	N/A	N/A	N/A	1 60	1 52	1 44	1 40	1 36	1 32	1 28	1 24	1 20	1 16	1 08	0 98
42	Xcel Energy Inc	1 20	1 72	1 62	1 52	1 44	1 36	1 28	1 20	1 11	1 07	1 03	1 00	0 97	0 94	0 91	0 88
43	**Average**	1 65	2 20	2 11	2.03	1.90	1.79	1.70	1 62	1.56	1.55	1.47	1 43	1.39	1 39	1.32	1.24
44	**Industry Average Growth**	4.19%	4.24%	4 22%	6.91%	5 79%	5 44%	5 20%	3 38%	0.98%	5 59%	2 36%	3.30%	-0.25%	4.98%	6.51%	

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

									Earnings per Share[1]							
Line	Company	15-Year Average (1)	2020[2] (2)	2019[3] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
1	ALLETE	2 87	3 20	3 33	3 38	3 13	3 14	3 38	2 90	2 63	2 58	2 65	2 19	1 89	2 82	3 08	2 77
2	Alliant Energy	1 64	2 45	2 33	2 19	1 99	1 65	1 69	1 74	1 65	1 53	1 38	1 38	0 95	1 27	1 35	1 03
3	Ameren Corp	2 76	3 45	3 35	3 32	2 77	2 68	2 38	2 40	2 10	2 41	2 47	2 77	2 78	2 88	2 98	2 66
4	American Electric Power	3 38	4 30	4 08	3 90	3 62	4 23	3 59	3 34	3 18	2 98	3 13	2 60	2 97	2 99	2 86	2 86
5	Avangrid, Inc	1 79	1 90	2 40	1 92	1 67	1 98	0 86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp	1 75	1 85	2 90	2 07	1 95	2 15	1 89	1 84	1 85	1 32	1 72	1 65	1 58	1 36	0 72	1 47
7	Black Hills	2 46	3 65	3 45	3 47	3 38	2 63	2 83	2 89	2 61	1 97	1 01	1 66	2 32	0 18	2 68	2 21
8	CenterPoint Energy	1 22	1 24	1 49	0 74	1 57	1 00	1 08	1 42	1 24	1 35	1 27	1 07	1 01	1 30	1 17	1 33
9	CMS Energy Corp	1 64	2 65	2 39	2 32	2 17	1 98	1 89	1 74	1 66	1 53	1 45	1 33	0 93	1 23	0 64	0 64
10	Consol Edison	3 72	3 90	3 95	4 55	4 10	3 94	4 05	3 62	3 93	3 86	3 57	3 47	3 14	3 36	3 48	2 95
11	Dominion Resources	2 90	3 20	2 15	3 25	3 53	3 44	3 20	3 05	3 09	2 75	2 76	2 89	2 64	3 04	2 13	2 40
12	DTE Energy	4 37	6 80	6 31	6 17	5 73	4 83	4 44	5 10	3 76	3 88	3 67	3 74	3 24	2 73	2 66	2 45
13	Duke Energy	3 87	4 05	5 05	4 13	4 22	3 71	4 10	4 13	3 98	3 71	4 14	4 02	3 39	3 03	3 60	2 73
14	Edison Int'l	3 36	1 70	4 65	-1 26	4 51	3 94	4 15	4 33	3 78	4 55	3 23	3 35	3 24	3 68	3 32	3 28
15	El Paso Electric	2 07	2 00	2 70	2 07	2 42	2 39	2 03	2 27	2 20	2 26	2 48	2 07	1 50	1 73	1 63	1 27
16	Entergy Corp	6 01	5 65	6 30	5 88	5 19	6 88	5 81	5 77	4 96	6 02	7 55	6 66	6 30	6 20	5 60	5 36
17	Eversource Energy	2 44	3 60	3 45	3 25	3 11	2 96	2 76	2 58	2 49	1 89	2 22	2 10	1 91	1 86	1 59	0 82
18	Evergy, Inc	2 72	2 65	2 79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp	3 00	3 00	3 00	2 07	2 78	1 80	2 54	2 10	2 31	1 92	3 75	3 87	4 29	4 10	4 03	3 50
20	FirstEnergy Corp	2 57	1 75	1 85	1 33	2 73	2 10	2 00	0 85	2 97	2 13	1 88	3 25	3 32	4 38	4 22	3 82
21	Fortis Inc	1 87	2 50	2 68	2 52	2 66	1 89	2 11	1 38	1 63	1 65	1 74	1 62	1 51	1 52	1 29	1 36
22	Great Plains Energy	1 33	N/A	N/A	N/A	-0 06	1 61	1 37	1 57	1 62	1 35	1 25	1 53	1 03	1 16	1 85	1 62
23	Hawaiian Elec	1 53	1 80	1 90	1 85	1 64	2 29	1 50	1 64	1 62	1 67	1 44	1 21	0 91	1 07	1 11	1 33
24	IDACORP, Inc	3 45	4 65	4 45	4 49	4 21	3 94	3 87	3 85	3 64	3 37	3 36	2 95	2 64	2 18	1 86	2 35
25	MGE Energy	1 98	2 65	2 51	2 43	2 20	2 18	2 06	2 32	2 16	1 86	1 76	1 67	1 47	1 59	1 51	1 37
26	NextEra Energy, Inc	1 34	2 10	1 94	1 67	1 63	1 45	1 52	1 40	1 21	1 14	1 21	1 19	0 99	1 02	0 82	0 81
27	NorthWestern Corp	2 58	3 15	3 55	3 40	3 34	3 39	2 90	2 99	2 46	2 26	2 53	2 14	2 02	1 77	1 44	1 31
28	OGE Energy	1 72	2 05	2 24	2 12	1 92	1 69	1 69	1 98	1 94	1 79	1 73	1 50	1 33	1 25	1 32	1 23
29	Otter Tail Corp	1 44	2 30	2 17	2 06	1 86	1 60	1 56	1 55	1 37	1 05	0 45	0 38	0 71	1 09	1 78	1 69
30	PG&E Corp	1 49	N/A	N/A	-13 25	3 50	2 83	2 00	3 06	1 83	2 07	2 78	2 82	3 03	3 22	2 78	2 76
31	Pinnacle West Capital	3 58	5 10	4 50	4 54	4 43	3 95	3 92	3 58	3 66	3 50	2 99	3 08	2 26	2 12	2 96	3 17
32	PNM Resources	1 37	2 20	2 20	1 66	1 92	1 65	1 64	1 45	1 41	1 31	1 08	0 87	0 58	0 11	0 76	1 72
33	Portland General	1 89	1 55	2 40	2 37	2 29	2 16	2 04	2 18	1 77	1 87	1 95	1 66	1 31	1 39	2 33	1 14
34	PPL Corp	2 36	2 30	2 40	2 58	2 11	2 79	2 37	2 38	2 38	2 61	2 61	2 29	1 19	2 45	2 63	2 29
35	Public Serv Enterprise	2 89	3 40	3 70	2 76	2 82	2 83	3 30	2 99	2 45	2 44	3 11	3 07	3 08	2 90	2 59	1 85
36	SCANA Corp	3 30	N/A	N/A	N/A	4 20	4 16	3 81	3 79	3 39	3 15	2 97	2 98	2 85	2 95	2 74	2 59
37	Sempra Energy	4 77	6 80	5 85	5 48	4 63	4 24	5 23	4 63	4 22	4 35	4 47	4 02	4 78	4 43	4 26	4 23
38	Southern Co	2 68	3 15	3 10	3 00	3 21	2 83	2 84	2 77	2 70	2 67	2 55	2 36	2 32	2 25	2 28	2 10
39	Vectren Corp	1 94	N/A	N/A	N/A	2 60	2 55	2 39	2 02	1 66	1 94	1 73	1 64	1 79	1 63	1 83	1 44
40	WEC Energy Group	2 43	3 75	3 58	3 34	3 14	2 96	2 34	2 59	2 51	2 35	2 18	1 92	1 60	1 52	1 42	1 32
41	Westar Energy	1 96	N/A	N/A	N/A	2 27	2 43	2 09	2 35	2 27	2 15	1 79	1 80	1 28	1 31	1 84	1 88
42	Xcel Energy Inc	1 95	2 80	2 60	2 47	2 30	2 21	2 10	2 03	1 91	1 85	1 72	1 56	1 49	1 46	1 35	1 35
43	Average	2 58	3 11	3 23	2 87	2 90	2 81	2 67	2 66	2 50	2 43	2 44	2 36	2 19	2 21	2 26	2 11
44	Industry Average Growth	2 91%	-3 72%	12.53%	-0 78%	3 24%	5 25%	0 08%	6 36%	3 26%	-0 70%	3 61%	7 71%	-1 07%	-2 17%	7 14%	

Sources
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019
[2] The Value Line Investment Survey, November 13, and December 11, 2020 and January 22, 2021
[3] The Value Line Investment Survey, January 24, February 14, and March 13, 2020
Notes
PG&E is excluded from 2017, 2018, and 2019 average calculations due to their Dividend Suspension

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

		Cash Flow / Capital Spending			
Line	Company	2019 (1)	2020 (2)	2021 (3)	3 - 5 yr Projection (4)
1	ALLETE	0 63x	0 74x	0 82x	1 95x
2	Alliant Energy	0.73x	0 82x	0 98x	1 02x
3	Ameren Corp	0 79x	0 51x	0 76x	0 95x
4	American Electric Power	0 75x	0.74x	0 78x	0 89x
5	Avangrid, Inc	0 70x	0 56x	0 55x	0 60x
6	Avista Corp	0 89x	0 85x	0 89x	1 04x
7	Black Hills	0 51x	0 72x	0 78x	1 21x
8	CenterPoint Energy	0.83x	0 88x	0 70x	0 76x
9	CMS Energy Corp	0 79x	0 82x	0 68x	0 91x
10	Consol Edison	0 79x	0 82x	0 90x	1.07x
11	Dominion Resources	0.81x	1 00x	0 88x	1 06x
12	DTE Energy	0 83x	0.67x	0 82x	1 31x
13	Duke Energy	0 78x	0 86x	0 86x	1 11x
14	Edison Int'l	0.69x	0 67x	0 75x	0 89x
15	El Paso Electric	0 96x	1 00x	0 83x	0 86x
16	Entergy Corp	0 79x	0 81x	0 97x	1 11x
17	Eversource Energy	0 78x	0 95x	0 86x	1 09x
18	Evergy, Inc	1 34x	1 06x	1 00x	1 38x
19	Exelon Corp	1 18x	1 30x	1 30x	1 50x
20	FirstEnergy Corp	0.74x	0 96x	0 91x	1 19x
21	Fortis Inc	0 68x	0 60x	0.73x	0.85x
22	Hawaiian Elec	1.12x	1 10x	1 35x	1 17x
23	IDACORP, Inc	1.25x	1 25x	1 21x	1 39x
24	MGE Energy	0 97x	0 73x	1 09x	1 22x
25	NextEra Energy, Inc	0 67x	0 58x	0.66x	0 67x
26	NorthWestern Corp	1 07x	0 98x	0 83x	1 13x
27	OGE Energy	1 26x	1 43x	1 21x	1 40x
28	Otter Tail Corp	0 80x	0 45x	1 21x	1 75x
29	Pinnacle West Capital	0 98x	0 98x	0 78x	1 13x
30	PNM Resources	0 72x	0 59x	0 51x	1 25x
31	Portland General	0 99x	0 75x	1 01x	1 46x
32	PPL Corp.	0 92x	1 06x	1 12x	1 62x
33	Public Serv Enterprise	1 07x	1 00x	1 27x	1 14x
34	Sempra Energy	0.66x	0 92x	0 80x	1 29x
35	Southern Co	0 88x	1 01x	0 95x	1 26x
36	WEC Energy Group	0.91x	0 70x	0 74x	0 97x
37	Xcel Energy Inc	0 69x	0 99x	0 94x	1.09x
38	Average	0 86x	0 86x	0 90x	1 15x
39	Median	0 80x	0.85x	0 86x	1 13x

Sources
  The Value Line Investment Survey Investment Analyzer Software,
  downloaded on June 25, 2019
  The Value Line Investment Survey, January 24, February 14, and March 13, 2020
  November 13, and December 11, 2020 and January 22, 2021
  The Value Line Investment Survey, January 24, February 14, and March 13, 2020
Notes
  Based on the projected Cash Flow per share and Capital Spending per share

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

Percent Dividends to Book Value [1]

Line	Company	14-Year Average (1)	2020 [2/a] (2)	2019 [3/a] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
1	ALLETE	5 96%	5 38%	5 44%	5 35%	5 29%	5 45%	5 45%	5 59%	5 86%	6 04%	6 18%	6 46%	6 67%	6 78%	6 80%	6 62%
2	Alliant Energy	6 29%	6 44%	6 69%	6 90%	7 32%	6 96%	6 70%	6 56%	6 36%	6 37%	6 26%	6 06%	5 98%	5 48%	5 23%	5 04%
3	Ameren Corp	6 03%	5.60%	5 87%	5 92%	6 01%	5 86%	5 78%	5 82%	5 93%	5 87%	4 76%	4 79%	4 66%	7 74%	7 84%	7 97%
4	American Electric Power	6 25%	6 86%	6 82%	6 56%	6 43%	6 42%	5 90%	5 91%	5 91%	5 99%	6 10%	6 04%	5 97%	6 23%	6 28%	6 32%
5	Avangrid, Inc	2 96%	3 57%	3 56%	3 57%	3 54%	3 53%	0 00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp	4 95%	5 52%	5 38%	5 52%	5 41%	5 33%	5 38%	5 33%	5 65%	5 51%	5 42%	5 07%	4 23%	3 77%	3 44%	3 26%
7	Black Hills	5 34%	5 34%	5 36%	5 31%	5 67%	5 55%	5 66%	5 06%	5 17%	5 31%	5 30%	5 14%	5 10%	5 15%	5 34%	5 58%
8	CenterPoint Energy	10 09%	6 79%	6 56%	8 94%	12 39%	12 82%	12 30%	8 96%	8 23%	8 05%	7 97%	10 36%	11 28%	12 40%	12 12%	12 09%
9	CMS Energy Corp	6 46%	8 40%	8 65%	8 52%	8 43%	8 14%	8 16%	8 10%	7 86%	7 94%	7 05%	5 90%	4 38%	3 31%	2 11%	0 00%
10	Consol Edison	6 09%	5 52%	5 52%	5 49%	5 55%	5 72%	5 84%	5 87%	5 88%	5 97%	6 15%	6 27%	6 47%	6 60%	7 12%	7 40%
11	Dominion Resources	10 53%	11 84%	10 62%	11 31%	11 41%	12 04%	12 20%	12 16%	11 24%	11 50%	9 81%	8 86%	9 38%	9 14%	8 95%	7 46%
12	DTE Energy	5 95%	6 47%	6 34%	6 38%	6 34%	6 09%	5 81%	5 72%	5 79%	5 66%	5 60%	5 49%	5 59%	5 76%	5 91%	6 28%
13	Duke Energy	5 29%	6 30%	6 07%	6 04%	5 85%	5 73%	5 61%	5 45%	5 28%	5 22%	5 81%	5 72%	5 66%	5 45%	5 12%	0 00%
14	Edison Int'l	5 11%	7 04%	6 54%	7 56%	6 23%	5 39%	4 97%	4 41%	4 48%	4 54%	4 16%	3 90%	4 12%	4 19%	4 53%	4 65%
15	El Paso Electric	3 09%	5 13%	5 13%	4 94%	4 67%	4 62%	4 63%	4 53%	4 46%	4 72%	3 47%	0 00%	0 00%	0 00%	0 00%	0 00%
16	Entergy Corp	6 73%	6 98%	7 13%	7 65%	7 90%	7 58%	6 44%	5 95%	6 15%	6 42%	6 53%	6 82%	6 59%	7 13%	6 34%	5 34%
17	Eversource Energy	4 89%	5 29%	5 68%	5 57%	5 43%	5 27%	5 12%	4 99%	4 82%	4 49%	4 86%	4 75%	4 66%	4 26%	4 16%	4 00%
18	Evergy, Inc	5 22%	5 35%	5 10%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp	7 39%	4 50%	4 35%	4 34%	4 23%	4 51%	4 42%	4 72%	5 49%	8 38%	9 68%	10 25%	10 96%	12 21%	11 87%	11 02%
20	FirstEnergy Corp	8 63%	11 73%	10 85%	13 82%	16 34%	10 21%	4 91%	4 88%	5 44%	7 03%	6 93%	7 85%	7 84%	8 10%	6 96%	6 54%
21	Fortis Inc	5 34%	5 20%	5 10%	5 03%	5 19%	4 80%	5 00%	5 22%	5 58%	5 81%	5 70%	5 91%	5 60%	5 55%	4 90%	5 47%
22	Great Plains Energy	5 31%	N/A	N/A	N/A	4 78%	4 27%	4 21%	4 02%	3 91%	3 93%	3 84%	3 90%	4 03%	7 76%	9 13%	9 94%
23	Hawaiian Elec	7 30%	6 11%	6 26%	6 24%	6 43%	6 51%	6 91%	7 10%	7 27%	7 62%	7 77%	7 91%	7 96%	8 08%	8 11%	9 22%
24	IDACORP, Inc	4 54%	5 36%	5 24%	5 11%	5 02%	4 87%	4 70%	4 53%	4 26%	3 91%	3 62%	3 87%	4 11%	4 32%	4 48%	4 66%
25	MGE Energy	6 22%	5 34%	5 59%	5 60%	5 61%	5 79%	5 82%	5 84%	6 01%	6 22%	6 36%	6 56%	6 72%	6 87%	7 24%	7 77%
26	NextEra Energy, Inc	6 38%	7 51%	6 61%	6 22%	6 55%	6 69%	6 29%	6 49%	6 36%	6 34%	6 12%	5 82%	5 99%	6 30%	6 22%	6 21%
27	NorthWestern Corp	5 85%	5 84%	5 72%	5 70%	5 76%	5 77%	5 78%	5 08%	5 71%	5 90%	6 08%	6 01%	6 13%	6 21%	6 06%	6 00%
28	OGE Energy	6 70%	8 71%	7 30%	6 96%	6 59%	6 70%	6 30%	5 84%	5 56%	5 70%	5 81%	6 24%	6 79%	6 89%	7 47%	7 61%
29	Otter Tail Corp	7 23%	7 10%	7 19%	7 29%	7 27%	7 34%	7 70%	7 86%	8 07%	8 25%	7 52%	6 77%	6 33%	6 22%	6 67%	6 90%
30	PG&E Corp	5 29%	N/A	N/A	0 00%	4 15%	5 44%	5 40%	5 50%	5 80%	6 00%	6 20%	6 38%	6 03%	6 01%	5 96%	5 88%
31	Pinnacle West Capital	6 17%	6 45%	6 37%	6 16%	6 03%	5 93%	5 91%	5 89%	5 84%	7 38%	6 00%	6 20%	6 42%	6 15%	5 98%	5 87%
32	PNM Resources	3 84%	5 25%	5 67%	5 12%	4 67%	4 18%	3 85%	3 37%	3 26%	2 89%	2 55%	2 84%	2 65%	3 20%	4 13%	3 89%
33	Portland General	4 74%	5 49%	5 26%	5 09%	4 94%	4 78%	4 64%	4 56%	4 70%	4 70%	4 78%	4 90%	4 93%	4 48%	4 42%	3 45%
34	PPL Corp	8 95%	9 51%	9 48%	10 13%	10 18%	10 44%	10 19%	7 28%	7 43%	8 00%	7 48%	8 24%	9 47%	9 89%	8 20%	8 27%
35	Public Serv Enterprise	6 88%	6 22%	6 34%	6 31%	6 27%	6 31%	6 03%	6 14%	6 28%	6 66%	6 75%	7 20%	7 66%	8 40%	8 15%	8 54%
36	SCANA Corp	6 44%	N/A	N/A	N/A	6 67%	5 74%	5 72%	6 01%	6 14%	6 29%	6 48%	6 54%	6 80%	7 12%	6 94%	6 89%
37	Sempra Energy	5 29%	5 78%	6 32%	6 59%	6 53%	5 83%	5 89%	5 74%	5 60%	5 66%	4 68%	4 16%	4 27%	4 18%	3 89%	4 19%
38	Southern Co	9 52%	9 57%	9 39%	9 95%	9 59%	8 89%	9 53%	9 48%	9 39%	9 22%	9 22%	9 38%	9 55%	9 74%	9 83%	10 07%
39	Vectren Corp	7 71%	N/A	N/A	N/A	7 67%	7 60%	7 57%	7 51%	7 55%	7 57%	7 74%	7 78%	7 84%	7 85%	7 86%	7 97%
40	WEC Energy Group	6 09%	7 63%	7 36%	7 12%	6 94%	7 00%	6 35%	7 96%	7 71%	6 65%	6 05%	4 92%	4 42%	3 78%	3 77%	3 72%
41	Westar Energy	5 71%	N/A	N/A	N/A	5 82%	5 66%	5 57%	5 60%	5 70%	5 77%	5 81%	5 84%	5 83%	5 75%	5 64%	5 56%
42	Xcel Energy Inc	6 13%	6 31%	6 44%	6 39%	6 38%	6 26%	6 13%	5 94%	5 78%	5 88%	5 91%	5 97%	6 09%	6 13%	6 19%	6 16%
43	Average	6 29%	6 58%	6 47%	6 51%	6 67%	6 44%	6 12%	6 07%	6 10%	6 28%	6 11%	6 08%	6 13%	6 36%	6 28%	6 10%
44	Median	6 07%	6 22%	6 32%	6 22%	6 23%	5 83%	5 81%	5 83%	5 82%	5 99%	6 09%	6 02%	6 01%	6 21%	6 21%	6 19%

Sources

[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019

[2] The Value Line Investment Survey, November 13, and December 11, 2020 and January 22 2021

[3] The Value Line Investment Survey, January 24, February 14, and March 13, 2020

[a] Based on the projected 2019 Dividend Declared per share and Book Value per share,
published in The Value Line Investment Survey, January 24, February 14, and March 13, 2020

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

		14-Year														
Line	Company	Average	2020 [2/b]	2019 [2/b]	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	ALLETE	0 68	0 77	0 71	0 66	0 68	0 66	0 60	0 68	0 72	0 71	0 67	0 80	0 93	0 61	0 53	0 52
2	Alliant Energy	0 61	0 62	0 61	0 61	0 63	0 72	0 65	0 59	0 57	0 59	0 62	0 57	0 79	0 55	0 47	0 56
3	Ameren Corp	0 68	0 58	0 57	0 56	0 64	0 64	0 70	0 67	0 76	0 66	0 63	0 56	0 55	0.88	0 85	0 95
4	American Electric Power	0 60	0 66	0 66	0 65	0 66	0 54	0 60	0 61	0.61	0 63	0 59	0 66	0 55	0 55	0 55	0 52
5	Avangrid, Inc	0 90	0 93	0 73	0 91	1 03	0 87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp	0 66	0 88	0 53	0 72	0 73	0 64	0 70	0 69	0 66	0 88	0 64	0 61	0 51	0 51	0 83	0 39
7	Black Hills	1 15	0 59	0 59	0 56	0 54	0 64	0 57	0 54	0 58	0 75	1 45	0 87	0 61	7 78	0 51	0 60
8	CenterPoint Energy	0 74	0 60	0 58	1 51	0 86	1 03	0 92	0 67	0 67	0 60	0 62	0 73	0 75	0 56	0 58	0 45
9	CMS Energy Corp	0 56	0 62	0 64	0 62	0 61	0 63	0 61	0 62	0 61	0 63	0 58	0 50	0 54	0 29	0 31	N/A
10	Consol Edison	0 69	0 78	0 75	0 63	0 67	0 68	0 64	0 70	0 63	0 63	0 67	0 69	0 75	0 70	0 67	0 78
11	Dominion Resources	0 82	1 08	1 71	1 03	0 86	0 81	0 81	0 79	0 73	0 77	0 71	0 63	0 66	0 52	0 69	0 58
12	DTE Energy	0 65	0 61	0 61	0 58	0 59	0 63	0 64	0 53	0 69	0 62	0 63	0 58	0 65	0 78	0 80	0 85
13	Duke Energy	0 81	0 94	0 74	0 88	0 83	0 91	0 79	0 76	0 78	0 82	0 72	0 72	0 83	0 89	0 72	N/A
14	Edison Int'l	0 31	1 52	0 53	- 1 93	0 50	0 50	0 42	0 34	0 36	0 29	0 40	0 38	0 38	0 33	0 35	0 34
15	El Paso Electric	0 53	0 81	0 56	0 68	0 54	0 51	0 57	0 49	0 48	0 43	0 27	N/A	N/A	N/A	N/A	N/A
16	Entergy Corp	0 54	0 66	0 58	0 61	0 67	0 50	0 57	0 58	0 67	0 55	0 44	0 49	0 48	0 48	0 46	0 40
17	Eversource Energy	0 59	0 63	0 62	0 62	0 61	0 60	0 61	0 61	0 59	0 70	0 50	0 49	0 50	0 44	0 49	0 88
18	Evergy, Inc	0 73	0 77	0 69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp	0 58	0 51	0 48	0 67	0 47	0 70	0 49	0 59	0 63	1 09	0 56	0.54	0 49	0 50	0 45	0 47
20	FirstEnergy Corp	0 82	0 89	0 83	1 37	0 53	0 69	0 72	1 69	0 56	1 03	1 17	0 68	0 66	0 50	0 49	0 48
21	Fortis Inc	0 71	0 79	0 69	0 69	0 62	0 82	0 68	0 94	0 77	0 73	0 67	0 69	0 69	0 66	0 64	0 49
22	Great Plains Energy	- 0 82		N/A	N/A	-18 33	0 66	0 73	0 60	0 54	0 63	0 67	0 54	0 81	1 43	0 90	1 02
23	Hawaiian Elec	0 86	0 73	0 67	0 67	0 76	0 54	0 83	0 76	0 77	0 74	0 86	1 02	1 36	1 16	1 12	0 93
24	IDACORP, Inc	0 50	0 58	0 58	0 53	0 53	0 53	0 50	0 46	0 43	0 41	0 36	0 41	0 45	0 55	0 65	0 51
25	MGE Energy	0 57	0 55	0 55	0 54	0 57	0 56	0 56	0 48	0 50	0 56	0 57	0 60	0 66	0 60	0 62	0 68
26	NextEra Energy, Inc	0 54	0 67	0 64	0 66	0 60	0 60	0 51	0 52	0 55	0 53	0 45	0 42	0 47	0 44	0 50	0 47
27	NorthWestern Corp	0 68	0 76	0 65	0 65	0 63	0 59	0 66	0 54	0 62	0 65	0 57	0 64	0 66	0 75	0 89	0 95
28	OGE Energy	0 57	0 77	0 67	0 66	0 66	0 68	0 62	0 48	0 44	0 45	0 44	0 49	0 54	0 56	0 52	0 55
29	Otter Tail Corp	1 12	0 64	0 65	0 65	0 69	0 78	0 79	0 78	0 87	1 13	2 64	3 13	1 68	1 09	0 66	0 68
30	PG&E Corp	0 65	N/A	N/A	N/A	0 44	0 68	0 91	0 59	0 99	0 88	0 65	0 65	0 55	0 48	0 52	0 48
31	Pinnacle West Capital	0 70	0 63	0 68	0 63	0 61	0 65	0 62	0 65	0 61	0 76	0 70	0 68	0 93	0 99	0 71	0 64
32	PNM Resources	0 92	0 57	0 54	0 65	0 52	0 53	0 49	0 52	0 48	0 44	0 46	0 57	0 86	5 50	1 20	0 50
33	Portland General	0 62	1 03	0 63	0 60	0 59	0 58	0 58	0 51	0 62	0 57	0 54	0 62	0 77	0 70	0 40	0 59
34	PPL Corp	0 64	0 72	0 69	0,64	0 75	0 54	0 63	0 63	0 62	0 55	0 54	0 61	1 16	0 55	0 46	0 48
35	Public Serv Enterprise	0 53	0 58	0 51	0 65	0 61	0 58	0 47	0 49	0 59	0 58	0 44	0 45	0 43	0 44	0 45	0 62
36	SCANA Corp	0 61		N/A	N/A	0 58	0 55	0 57	0 55	0 60	0 63	0 65	0 64	0 66	0 62	0 64	0 65
37	Sempra Energy	0 51	0 61	0,66	0,65	0 71	0 71	0 54	0 57	0 60	0 55	0 43	0 39	0 33	0 31	0 29	0 28
38	Southern Co	0 75	0 81	0 79	0 79	0 72	0 79	0 76	0 75	0 75	0 73	0 73	0 76	0 75	0 74	0 70	0 73
39	Vectren Corp	0 75		N/A	N/A	0 66	0 64	0 64	0 72	0 86	0 72	0 80	0 84	0 75	0 80	0 69	0 85
40	WEC Energy Group	0 54	0 67	0 66	0 66	0 66	0 67	0 74	0 60	0 58	0 51	0 48	0 42	0 42	0 36	0 35	0 35
41	Westar Energy	0 68		N/A	N/A	0 70	0 63	0 69	0 60	0 60	0 61	0 72	0 69	0 94	0 89	0 59	0 52
42	Xcel Energy Inc	0 62	0 61	0 62	0 62	0 63	0 62	0 61	0 59	0 58	0 58	0 60	0 64	0 65	0 64	0 67	0 65
43	Average	0 64	0 73	0 67	0 64	0 18	0 65	0 64	0 64	0 63	0 66	0 67	0 68	0 70	0 95	0 61	0 61
44	Median	0 62	0 67	0 64	0 65	0 63	0 64	0 63	0 60	0 61	0 63	0 62	0 62	0 66	0 60	0 59	0 56

Sources

[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019

[2] The Value Line Investment Survey November 13, and December 11, 2020 and January 22, 2021

[3] The Value Line Investment Survey, January 24, February 14, and March 13, 2020

Note

[b] Based on the projected 2019 Dividends Declared per share and Earnings per share,
published in The Value Line Investment Survey, January 24, February 14, and March 13, 2020

Southwestern Electric Power Company

Electric Utilities
(Valuation Metrics)

									Cash Flow to Capital Spending Ratio[1]							
Line	Company	14-Year Average (1)	2020 [2/c] (2)	2019 [2/c] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
1	ALLETE	0 81	0 49	0 63	1 22	1 61	1 32	1 16	0 45	0 67	0 49	0 77	0 63	0 39	0 46	0 65	1 23
2	Alliant Energy	0 79	0 86	0 73	N/A	0 49	N/A	0 81	0 91	1 01	0 57	0 91	0 67	0 39	0 57	1 04	1 27
3	Ameren Corp	0 89	0 51	0 79	0 80	0 75	0 75	0 75	0 75	0 89	1 07	1 31	1 36	0 81	0 66	0 97	1 21
4	American Electric Power	0 87	0 79	0 75	0 68	0 67	0 85	0 85	0 87	0 91	1 07	1 19	1 24	1 02	0 70	0 77	0 75
5	Avangrid, Inc	0 73	0 52	0 70	0 85	0 57	0 86	0 89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp	0 90	0 83	0 89	0 78	0 77	0 84	0 76	0 80	0 86	0 80	0 90	0 99	1 15	0 97	0 73	1 36
7	Black Hills	0 65	0 62	0 51	0 87	1 17	0 71	0 64	0 70	0 74	0 71	0 40	0 41	0 61	0 35	0 76	0 55
8	CenterPoint Energy	1 05	0 74	0 83	0 98	1 22	1 12	0 92	1 20	1 18	1 37	1 12	0 88	0 99	1 16	0 98	1 08
9	CMS Energy Corp	0 87	0 77	0 79	0 77	0 89	0 81	0 81	0 74	0 82	0.82	1 05	1 13	0 97	1 11	0 55	1 07
10	Consol Edison	0 82	0 83	0 79	0 82	0 76	0 65	0 76	0 88	0 86	1 01	0 98	0 90	0 75	0 70	0 81	0 74
11	Dominion Resources	0 78	0 74	0 81	1 04	0 81	0 65	0 64	0 63	0 77	0 73	0 79	0 87	0 75	0 83	0 74	0 85
12	DTE Energy	1 01	0 72	0 83	0 84	0 94	0 93	0 84	1 02	0 96	0 93	1 09	1 51	1 50	0 98	1 07	1 03
13	Duke Energy	0 89	0 71	0 78	0 81	0 87	0 82	0 96	1 20	1 09	0 87	0 89	0 78	0 77	0 71	1 09	0 97
14	Edison Int'l	0 76	0 60	0 69	0 34	0 94	0 91	0 80	0 83	0 80	0 76	0 61	0 60	0 79	0 93	0 88	0 93
15	El Paso Electric	0 87	0 83	0 96	0 86	1 04	0 85	0 67	0 69	0 79	0 85	1 03	0 98	0 68	0 78	0 84	1 26
16	Entergy Corp	1 00	0 83	0 79	0 73	0 76	1 08	1 05	1 19	1 03	0 88	1 15	1 24	1 02	0 93	1 14	1 13
17	Eversource Energy	0 85	0 76	0 78	0 83	0 79	0 87	0 91	0 90	1 13	0 86	0 80	1 05	0 96	0 77	0 68	0 67
18	Evergy, Inc	1 17	0 99	1 34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp	1 25	1 08	1 18	1 05	1 06	0 76	0 82	0 93	1 07	0 98	1 19	1 66	1 66	1 61	1 84	1 86
20	FirstEnergy Corp	1 02	0 68	0 74	0 76	1 03	0 94	0 93	0 54	0 91	0 85	1 05	1 32	1 22	0 95	1 56	1 75
21	Fortis Inc	0 67	0 60	0 68	0 72	0 76	0 76	0 65	0 60	0 77	0 72	0 66	0 68	0 63	0 66	0 57	0 63
22	Great Plains Energy	0.79		N/A	N/A	0 78	1 17	0 90	0 79	0 91	0 86	1 03	0 86	0 50	0 35	0 69	0 64
23	Hawaiian Elec	1.08	1 35	1 12	0 85	0 81	1 37	0 98	1 03	0 92	0 99	1 30	1 50	0 79	0 87	1 15	1 23
24	IDACORP, Inc	1 08	1 21	1 25	1 42	1 33	1 16	1 15	1 21	1 34	1 24	0 86	0 78	0 96	0 82	0 64	0 89
25	MGE Energy	1 10	0 77	0 97	0 66	1 19	1 44	1 60	1 31	0 96	1 05	1 56	1 57	1 13	0 87	0 59	0 80
26	NextEra Energy, Inc	0 62	0 58	0 67	0 56	0 53	0 63	0 71	0 77	0 68	0 39	0 58	0 69	0 60	0 63	0 56	0 73
27	NorthWestern Corp	1 05	0 86	1 07	1 23	1 21	1 13	1 01	0 93	0 92	0 88	1 04	0 76	0 88	1 27	1 23	1 29
28	OGE Energy	0 90	1 40	1 26	1 30	0 81	1 00	1 18	1 19	0 69	0 63	0 51	0 69	0 61	0 60	0 79	0 84
29	Otter Tail Corp	0 86	0 46	0 80	1 49	1 10	0 84	0 74	0 70	0 67	0 85	1 16	1 09	0 56	0 37	0 65	1 44
30	PG&E Corp	0 70	N/A	N/A	- 0 58	0 82	0 73	0 69	0 80	0 56	0 68	0 83	0 85	0 78	0 84	1 02	1 12
31	Pinnacle West Capital	0 96	1 00	0 98	1 06	0 76	0 81	0 92	0 97	0 87	0 96	0 91	0 97	1 06	0 86	0 99	1 28
32	PNM Resources	0 70	0 60	0 72	0 82	0 84	0 57	0 57	0 63	0 80	0 87	0 77	0 82	0 70	0 44	0.43	0 89
33	Portland General	0 84	0 73	0 99	1 00	1 07	0 88	0 80	0 47	0 59	1 28	1 25	0 81	0 44	0 77	0 72	0 78
34	PPL Corp	0 96	0 95	0 92	0 93	0 82	1 00	0 72	0 75	0 69	0 91	1 07	1 11	1 07	1 25	1 13	1 18
35	Public Serv Enterprise	1 12	1 12	1.07	0 70	0 64	0 61	0 80	1 04	0 93	0 96	1 30	1 23	1 41	1 34	1 64	1 94
36	SCANA Corp	0 86		N/A	N/A	0 86	0 66	0 83	0 90	0 83	0 77	0 88	0 86	0 76	0 76	0 92	1 26
37	Sempra Energy	0 79	0 67	0 66	0 80	0 67	0 56	0 81	0 74	0 84	0 73	0 72	0 90	1 02	0 87	0 90	0 93
38	Southern Co	0 87	0 79	0 88	0 83	0 90	0 77	0 88	0 80	0 86	0 93	0 94	0 93	0 78	0 87	0 91	1 00
39	Vectren Corp	1 00		N/A	N/A	0 82	0 87	0 95	0 98	1 05	1 13	1 20	1 31	0 83	0 82	0 98	1 00
40	WEC Energy Group	0 96	0 72	0 91	0 90	0 92	1 20	0 97	1 37	1 42	1 30	1 02	0 97	0 89	0 61	0 56	0 69
41	Westar Energy	0 72		N/A	N/A	0 91	0 63	0 86	0 70	0 72	0 67	0 71	0 88	0 68	0 36	0 48	1 00
42	Xcel Energy Inc	0 77	0 99	0 69	0 77	0 84	0 79	0 63	0 68	0 60	0 76	0 83	0 76	0 89	0 75	0 71	0 90
43	Average	0 89	0 80	0 86	0 85	0 89	0 88	0 86	0 87	0 88	0 88	0 96	0 98	0 86	0 80	0 88	1 05
44	Median	0 85	0 77	0 80	0 83	0 84	0 84	0 83	0 82	0 86	0 87	0 96	0 90	0 80	0 80	0 82	1 00

Sources
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019
[2] The Value Line Investment Survey, November 13, and December 11, 2020 and January 22, 2021
[3] The Value Line Investment Survey, January 24, February 14, and March 13, 2020
Notes
[c] Based on the projected Cash Flow per share and Capital Spending per share

Southwestern Electric Power Company

Natural Gas Utilities
(Valuation Metrics)

Price to Earnings (P/E) Ratio [1]

Line	Company	15-Year Average (1)	2020 [2] (2)	2019 [2] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
1	Atmos Energy	17 11	20 40	23 20	21 75	22 04	20 80	17 50	16 09	15 87	15 93	14 36	13 21	12 54	13 59	15 87	13 52
2	Chesapeake Utilities	18 82	26 00	27 10	22 94	27 84	21 77	19 15	17 70	15 62	14 81	14 16	12 21	14 20	14 15	16 72	17 85
3	New Jersey Resources	17 25	17 40	24 30	15 64	22 38	21 25	16 61	11 73	15 98	16 83	16 76	14 98	14 93	12 27	21 61	16 13
4	NiSource Inc	19 94	18 40	22 30	19 34	NMF	23 18	37 34	22 74	18 89	17 87	19 36	15 33	14 34	12 07	18 82	19 16
5	Northwest Nat Gas	20 97	21 20	32 20	26 63	NMF	26 92	23 69	20 69	19 38	21 08	19 02	16 97	15 17	18 08	16 74	-15 85
6	ONE Gas Inc	21 91	21 20	25 30	23 06	23 47	22 74	19 79	17 83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds	18 76	13 40	28 80	22 64	27 92	21 71	17 95	18 03	18 90	16 94	18 48	16 81	14 96	15 90	17 18	11 86
8	Southwest Gas	17 61	16 20	20 20	20 61	22 21	21 64	19 35	17 86	15 76	15 00	15 69	13 97	12 20	20 27	17 26	15 94
9	Spire Inc	16 72	17 60	22 80	16 74	19 82	19 61	16 49	19 80	21 25	14 46	13 05	13 74	13 39	14 31	14 19	13 60
10	UGI Corp	15 86	12 70	23 40	17 77	20 84	19 33	17 71	15 81	15 44	16 38	15 03	10 86	10 30	13 30	15 14	13 97
11	WGL Holdings Inc	16 71	N/A	N/A	N/A	25 40	20 05	16 99	15 15	18 25	15 27	16 97	15 11	12 58	13 66	15 60	15 46
12	Average	18 15	18 45	24 96	20 71	23 55	21 73	20 23	17 58	17 53	16 46	16 29	14 32	13 46	14 76	16 91	15 33
13	Median	17 79	18 00	23 85	21 18	22 38	21 64	17 95	17 83	17 11	16 15	16 22	14 48	13 80	13 91	16 73	15 66

Market Price to Cash Flow (MP/CF) Ratio [1]

Line	Company	15-Year Average (1)	2020 [2/a] (2)	2019 [2/a] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
14	Atmos Energy	8 87	12 21	13 50	12 02	11 99	11 36	9 30	8 79	7 72	7 02	6 87	6 15	5 76	6 48	7 44	6 36
15	Chesapeake Utilities	9 82	11 89	13 25	12 24	13 78	12 06	10 16	9 25	8 12	7 46	7 35	6 36	9 48	7 88	8 58	9 40
16	New Jersey Resources	12 00	11 34	15 30	11 44	14 45	13 94	11 71	8 95	11 29	12 29	12 71	11 32	11 34	9 15	13 76	11 01
17	NiSource Inc	7 96	8 08	9 89	8 91	12 11	8 56	10 38	10 56	8 71	7 81	6 81	5 09	4 06	4 87	6 69	6 87
18	Northwest Nat Gas	13 21	12 72	14 59	11 75	59 72	11 57	9 46	8 84	8 61	9 48	9 08	8 94	8 26	8 75	8 54	7 83
19	ONE Gas Inc	10 83	11 24	12 41	11 85	11 89	11 10	9 19	8 16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	South Jersey Inds	10 92	9 56	14 21	10 72	12 33	10 88	10 70	10 57	11 57	10 95	11 98	10 78	9 57	10 38	11 23	8 32
21	Southwest Gas	6 38	6 43	9 03	9 32	9 10	7 41	6 56	6 35	5 94	5 55	5 60	4 91	3 84	4 89	5 42	5 28
22	Spire Inc	9 86	12 60	11 21	9 60	10 39	10 32	8 47	12 03	13 76	8 80	8 08	8 12	8 58	8 95	8 46	8 46
23	UGI Corp	7 85	7 14	11 87	9 01	10 09	9 02	8 47	7 49	6 55	6 30	7 51	6 02	5 74	7 11	7 92	7 48
24	WGL Holdings Inc	9 17	N/A	N/A	N/A	12 92	11 36	9 59	8 46	9 83	9 03	9 52	8 34	7 17	7 68	8 39	7 81
25	Average	9 62	10 32	12 53	10 69	16 25	10 69	9 45	9 04	9 21	8 47	8 55	7 60	7 38	7 62	8 64	7 88
26	Median	9 36	11 29	12 83	11 08	12 11	11 10	9 46	8 84	8 66	8 31	7 80	7 24	7 71	7 78	8 42	7 82

Market Price to Book Value (MP/BV) Ratio [1]

Line	Company	15-Year Average (1)	2020 [2/b] (2)	2019 [2/b] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
27	Atmos Energy	1 58	1 82	2 12	2 03	2 16	2 11	1 72	1 55	1 39	1 28	1 30	1 18	1 05	1 20	1 40	1 34
28	Chesapeake Utilities	1 98	2 46	2 51	2 50	2 51	2 28	2 19	2 12	1 83	1 66	1 61	1 40	1 37	1 64	1 84	1 85
29	New Jersey Resources	2 23	1 60	2 63	2 63	2 70	2 52	2 28	2 13	2 05	2 33	2 31	2 09	2 16	1 92	2 17	2 01
30	NiSource Inc	1 50	1 82	2 03	1 92	1 96	1 84	1 95	1 94	1 58	1 37	1 15	0 92	0 69	0 94	1 16	1 19
31	Northwest Nat Gas	1 91	2 01	2 54	2 35	2 41	1 92	1 63	1 59	1 56	1 72	1 70	1 78	1 73	1 96	2 05	1 69
32	ONE Gas Inc	1 69	1 88	2 16	1 93	1 89	1 67	1 26	1 07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	South Jersey Inds	2 07	1 55	1 89	2 11	2 29	1 79	1 77	2 07	2 27	2 21	2 59	2 38	1 95	2 08	2 21	1 93
34	Southwest Gas	1 55	1 33	1 83	1 79	2 13	1 96	1 68	1 68	1 61	1 51	1 43	1 24	0 97	1 20	1 46	1 46
35	Spire Inc	1 56	1 43	1 77	1.63	1 65	1 64	1 44	1 33	1 34	1 51	1 46	1 39	1 68	1 71	1 66	1 71
36	UGI Corp	2 03	1 71	2 68	2 30	2 62	2 41	2 29	1 97	1 69	1 45	1 75	1 55	1 66	2 01	2 16	2 21
37	WGL Holdings Inc	1 81	N/A	N/A	N/A	2 69	2 45	2 15	1 69	1 71	1 66	1 63	1 50	1 45	1 59	1 64	1 59
38	Average	1 81	1 76	2 22	2 12	2 27	2 05	1 85	1 74	1 70	1 67	1 69	1 54	1 47	1 62	1 78	1 70
39	Median	1 78	1 76	2 14	2 07	2 29	1 96	1 77	1 69	1 65	1 58	1 62	1 45	1 56	1 67	1 75	1 70

Sources

[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019

[2] The Value Line Investment Survey, Nov 28, 2020

Notes

[a] Based on the average of the high and low price for year and the projected Cash Flow per share, published in The Value Line Investment Survey
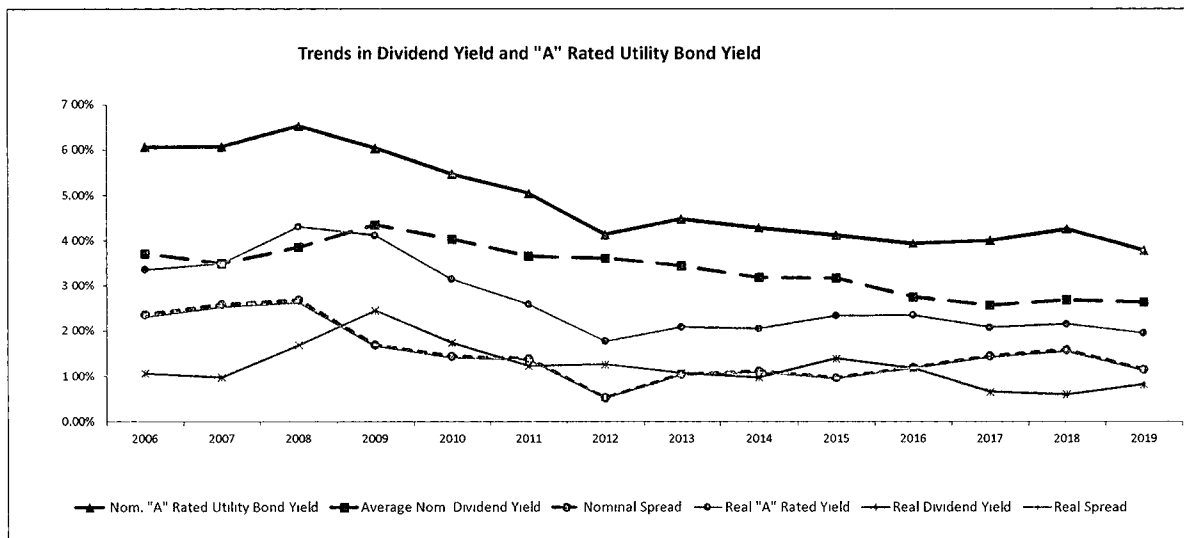
[b] Based on the average of the high and low price for the year and the projected Book Value per share, published in The Value Line Investment Survey

Southwestern Electric Power Company

Natural Gas Utilities
(Valuation Metrics)

Line	Company	Dividend Yield[1]															
		15-Year Average (1)	2020[2,a] (2)	2019[2,a] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
1	Atmos Energy	3 52%	2 31%	2 05%	2 23%	2 27%	2 39%	2 88%	3 11%	3 53%	4 13%	4 19%	4 70%	5 34%	4 78%	4 16%	4 66%
2	Chesapeake Utilities	2 84%	1 87%	1 76%	1 76%	1 69%	1 91%	2 18%	2 44%	2 87%	3 25%	3 36%	3 91%	4 09%	4 10%	3 62%	3 76%
3	New Jersey Resources	3 23%	3 86%	2 60%	2 61%	2 69%	2 86%	3 14%	3 50%	3 71%	3 38%	3 33%	3 69%	3 46%	3 35%	3 02%	3 19%
4	NiSource Inc	4 02%	3 43%	2 89%	3 10%	2 79%	2 76%	3 53%	2 69%	3 30%	3 84%	4 53%	5 66%	7 64%	5 69%	4 29%	4 21%
5	Northwest Nat Gas	3 53%	3 19%	2 89%	3 05%	3 02%	3 28%	4 01%	4 14%	4 22%	3 83%	3 85%	3 63%	3 73%	3 27%	3 12%	3 73%
6	ONE Gas Inc	2 45%	2 69%	2 32%	2 46%	2 37%	2 32%	2 71%	2 28%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds	3 39%	4 65%	3 80%	3 62%	3 20%	3 64%	3 95%	3 40%	3 14%	3 22%	2 81%	3 00%	3 43%	3 08%	2 81%	3 15%
8	Southwest Gas	2 89%	3 55%	2 62%	2 74%	2 46%	2 62%	2 87%	2 72%	2 69%	2 75%	2 78%	3 15%	4 01%	3 19%	2 56%	2 60%
9	Spire Inc	3 79%	3 59%	2 97%	3 10%	3 09%	3 08%	3 53%	3 78%	3 96%	4 11%	4 31%	4 70%	3 91%	3 94%	4 43%	4 34%
10	UGI Corp	2 87%	3 93%	2 35%	2 09%	2 01%	2 35%	2 50%	2 61%	3 01%	3 68%	3 30%	3 48%	3 23%	2 85%	2 69%	2 96%
11	WGL Holdings Inc	3 91%	N/A	N/A	N/A	2 56%	2 94%	3 41%	4 24%	3 94%	3 89%	4 06%	4 37%	4 62%	4 22%	4 19%	4 48%
12	Average	3 36%	3 31%	2 63%	2 68%	2 56%	2 74%	3 16%	3 17%	3 44%	3 61%	3 65%	4 03%	4 35%	3 85%	3 49%	3,71%
13	Median	3 31%	3 49%	2 61%	2 68%	2 56%	2 76%	3 14%	3 11%	3 42%	3 75%	3 60%	3 80%	3 96%	3 65%	3 37%	3 75%
14	20-Yr Treasury Yields[3]	3 26%	1 35%	2 40%	3 02%	2 65%	2 23%	2 55%	3 07%	3 12%	2 54%	3 62%	4 03%	4 11%	4 36%	4 91%	4 99%
15	20-Yr TIPS[3]	1 15%	-0 30%	0 60%	0 94%	0 75%	0 66%	0 78%	0 87%	0 75%	0 21%	1 19%	1 73%	2 21%	2 19%	2 36%	2 31%
16	Implied Inflation[b]	2 09%	1 66%	1 79%	2 06%	1 89%	1 56%	1 75%	2 19%	2 35%	2 33%	2 40%	2 26%	1 85%	2 13%	2 49%	2 62%
17	Real Dividend Yield[c]	1 24%	1 62%	0 82%	0 60%	0 65%	1,17%	1 38%	0 96%	1 06%	1 25%	1 22%	1 73%	2 45%	1 68%	0 97%	1 06%
	Utility																
18	Nominal "A" Rated Yield[d]	4 75%	3 02%	3 77%	4 25%	4 00%	3.93%	4 12%	4 28%	4 48%	4 13%	5 04%	5 46%	6 04%	6 53%	6 07%	6 07%
19	Real "A" Rated Yield	2.60%	1 33%	1 94%	2 14%	2 07%	2 34%	2 33%	2 04%	2 08%	1 76%	2 58%	3 13%	4 11%	4 31%	3 49%	3 36%
	Spreads (Utility Bond - Stock)																
20	Nominal[d]	1.39%	-0 29%	1.14%	1 57%	1 44%	1 19%	0 96%	1 11%	1 04%	0 52%	1 39%	1 43%	1 69%	2 68%	2 59%	2 36%
21	Real[e]	1 36%	-0 29%	1 12%	1.54%	1 41%	1 17%	0 94%	1 08%	1 01%	0 51%	1 36%	1 40%	1 66%	2 62%	2 52%	2 30%
	Spreads (Treasury Bond - Stock)																
22	Nominal[f]	-0 09%	-1 96%	-0 22%	0 34%	0 09%	-0 52%	-0 61%	-0 10%	-0 32%	-1 06%	-0 03%	0 00%	-0 24%	0 51%	1.42%	1 28%
23	Real[g]	-0 09%	-1 92%	-0 22%	0 34%	0 09%	-0 51%	-0 60%	-0 10%	-0 31%	-1 04%	-0 03%	0 00%	-0 23%	0 50%	1 39%	1 25%

Trends in Dividend Yield and "A" Rated Utility Bond Yield

Legend: ─▲─ Nom. "A" Rated Utility Bond Yield ─■─ Average Nom Dividend Yield ─□─ Nominal Spread ─○─ Real "A" Rated Yield ─✕─ Real Dividend Yield ─+─ Real Spread

Sources
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019
[2] The Value Line Investment Survey, Nov 28, 2020
[3] St Louis Federal Reserve Economic Research, http //research stlouisfed org
[4] www moodys com, Bond Yields and Key Indicators, through December 31, 2020
Notes
[a] Based on the average of the high and low price for the year and the projected Dividends Declared per share published in the Value Line Investment Survey
[b] Line 16 = (1 + Line 14) / (1 + Line 15) - 1
[c] Line 17 = (1 + Line 12) / (1 + Line 16) - 1
[d] The spread being measured here is the nominal A-rated utility bond yield over the average nominal utility dividend yield, (Line 18 - Line 12)
[e] The spread being measured here is the real A-rated utility bond yield over the average real utility dividend yield, Line 19 - Line 17)
[f] The spread being measured here is the nominal 20-Year Treasury yield over the average nominal utility dividend yield, (Line 14 - Line 12)
[g] The spread being measured here is the real 20-Year TIPS yield over the average real utility dividend yield, Line 15 - Line 17)

Southwestern Electric Power Company

Natural Gas Utilities
(Valuation Metrics)

Line	Company	15-Year Average (1)	2020 [2] (2)	2019 [2] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
									Dividend per Share [1]								
1	Atmos Energy	1 57	2 30	2 10	1.94	1 80	1 68	1 56	1 48	1 40	1 38	1 36	1 34	1 32	1 30	1 28	1 26
2	Chesapeake Utilities	1 08	1 69	1 55	1 39	1 26	1.19	1 12	1 07	1 01	0 96	0 91	0 87	0 83	0 81	0.78	0 77
3	New Jersey Resources	0 83	1 27	1 19	1 11	1 04	0 98	0 93	0 86	0 81	0 77	0 72	0 68	0 62	0 56	0 51	0 48
4	NiSource Inc	0.87	0 86	0 80	0 78	0 70	0 64	0 83	1 02	0 98	0 94	0 92	0 92	0 92	0 92	0 92	0 92
5	Northwest Nat Gas	1 74	1 91	1 90	1 89	1 88	1 87	1 86	1 85	1 83	1 79	1 75	1 68	1 60	1 52	1 44	1.39
6	ONE Gas Inc	1 59	2 16	2 00	1 84	1 68	1 40	1 20	0 84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds	0 86	1 20	1 16	1.13	1 10	1 06	1 02	0 96	0 90	0.83	0 75	0.68	0.61	0 56	0 51	0 46
8	Southwest Gas	1 43	2 26	2.18	2 08	1.98	1 80	1 62	1 46	1 32	1 18	1 06	1 00	0 95	0 90	0 86	0 82
9	Spire Inc	1 81	2 49	2 37	2 25	2 10	1 96	1 84	1 76	1 70	1 66	1 61	1 57	1 53	1 49	1 45	1 40
10	UGI Corp	0 78	1 32	1 15	1 02	0 96	0 93	0 89	0 79	0 74	0 71	0 68	0 60	0 52	0 50	0 48	0 46
11	WGL Holdings Inc	1 62	N/A	N/A	N/A	2 02	1 93	1 83	1 72	1.66	1 59	1 55	1 50	1 47	1 41	1 37	1 35
12	**Average**	**1.27**	**1.75**	**1.64**	**1.54**	**1.50**	**1.40**	**1.34**	**1.25**	**1.24**	**1.18**	**1.13**	**1.08**	**1.04**	**1.00**	**0 96**	**0.93**
13	Industry Average Growth	4.61%	6.46%	6.27%	2.76%	6.99%	5.03%	6.50%	1 58%	4.67%	4.35%	4.34%	4.47%	4.20%	3.83%	3.13%	

Sources

[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019

[2] The Value Line Investment Survey, Nov 28, 2020.

Southwestern Electric Power Company

Natural Gas Utilities
(Valuation Metrics)

								Earnings per Share[1]								
Line	Company	15-Year Average (1)	2020[2] (2)	2019[2] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
1	Atmos Energy	2 87	4 72	4 35	4 00	3 60	3 38	3 09	2 96	2 50	2 10	2 26	2 16	1 97	2 00	1 94	2 00
2	Chesapeake Utilities	2 32	4 05	3 40	3 45	2 68	2 86	2 68	2 47	2 26	1 99	1 91	1 82	1 43	1 39	1 29	1 15
3	New Jersey Resources	1 55	1 90	1.96	2 72	1 73	1 61	1 78	2 08	1 37	1.36	1 29	1 23	1 20	1 35	0 78	0 93
4	NiSource Inc	1 14	1 30	1 25	1 30	0 39	1 00	0 63	1 67	1 57	1 37	1 05	1 06	0 84	1 34	1 14	1 14
5	Northwest Nat Gas	2 07	2 25	2 10	2 33	-1 94	2 12	1 96	2 16	2 24	2.22	2 39	2 73	2 83	2 57	2 76	2 35
6	ONE Gas Inc	2 90	3 56	3 51	3 25	3 02	2 65	2 24	2 07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds	1 34	1 65	1 10	1 38	1 23	1 34	1 44	1 57	1 52	1 52	1 45	1 35	1 19	1 14	1 05	1 23
8	Southwest Gas	2 81	4 00	3 75	3 68	3 62	3 18	2 92	3 01	3 11	2 86	2 43	2 27	1 94	1 39	1 95	1 98
9	Spire Inc	2 79	1 44	3 52	4 33	3 43	3 24	3 16	2.35	2 02	2 79	2 86	2 43	2 92	2 64	2 31	2 37
10	UGI Corp	1 78	2 55	2 28	2 74	2 29	2 05	2 01	1 92	1 59	1 17	1 37	1 59	1 57	1 33	1 18	1.10
11	WGL Holdings Inc	2 56	N/A	N/A	N/A	3 11	3 27	3 16	2 68	2 31	2.68	2 25	2 27	2 53	2 44	2 09	1.94
12	Average	2.15	2.74	2.72	2.92	2.11	2.43	2.28	2.27	2.05	2.01	1.93	1.89	1.84	1.76	1.65	1.62
13	Industry Average Growth	4.36%	0.73%	-6.72%	38.59%	-13.26%	6.50%	0.54%	10.67%	2.13%	4.13%	1 87%	2.61%	4 79%	6.67%	1 82%	

Sources
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019.
[2] The Value Line Investment Survey, Nov 28, 2020

Southwestern Electric Power Company

Natural Gas Utilities
(Valuation Metrics)

		Cash Flow / Capital Spending			
Line	Company	2019 (1)	2020 (2)	2021 (3)	3 - 5 yr Projection (4)
1	Atmos Energy	0.53x	0.53x	0.53x	0.63x
2	Chesapeake Utilities	0.66x	0.64x	0.71x	0.78x
3	New Jersey Resources	1.41x	0.65x	0.80x	0.89x
4	NiSource Inc.	0.66x	0.65x	0.69x	0.87x
5	Northwest Nat. Gas	0.77x	0.75x	0.84x	0.98x
6	ONE Gas Inc.	0.78x	0.88x	0.84x	1.03x
7	South Jersey Inds.	0.48x	0.47x	0.50x	0.53x
8	Southwest Gas	0.62x	0.53x	0.62x	0.58x
9	Spire Inc.	0.65x	0.65x	0.64x	0.94x
10	UGI Corp.	1.33x	1.54x	1.51x	1.62x
11	Average	0.79x	0.73x	0.77x	0.89x
12	Median	0.66x	0.65x	0.70x	0.88x

Sources:

The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019.

The Value Line Investment Survey, Nov 28, 2020.

Notes:

Based on the projected Cash Flow per share and Capital Spending per share.

Southwestern Electric Power Company

Natural Gas Utilities
(Valuation Metrics)

Percent Dividends to Book Value [1]

Line	Company	15-Year Average (1)	2020 [2/a] (2)	2019 [2/a] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
1	Atmos Energy	5 16%	4 20%	4 36%	4 53%	4 90%	5 04%	4 96%	4 81%	4 92%	5 28%	5 44%	5 55%	5 61%	5 75%	5 82%	6 25%
2	Chesapeake Utilities	5 30%	4 60%	4 42%	4 39%	4 23%	4 35%	4 78%	5 18%	5 25%	5 39%	5 42%	5 49%	5 60%	6 71%	6 66%	6 95%
3	New Jersey Resources	7 11%	6 20%	6 85%	6 87%	7 26%	7 21%	7 16%	7 45%	7 60%	7 86%	7 69%	7 72%	7 48%	6 42%	6 54%	6 40%
4	NiSource Inc	5 48%	6 25%	5 86%	5 96%	5 46%	5 08%	6 89%	5 22%	5 22%	5 25%	5 19%	5 22%	5 25%	5 34%	4 97%	5 02%
5	Northwest Nat Gas	6 62%	6 43%	7 36%	7 16%	7 27%	6 30%	6 53%	6 58%	6 59%	6 57%	6 55%	6 44%	6 43%	6 41%	6 39%	6 32%
6	ONE Gas Inc	4 14%	5 06%	5 01%	4 73%	4 48%	3 88%	3 41%	2 44%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds	6 93%	7 23%	7 18%	7 63%	7 34%	6 53%	6 98%	7 04%	7 12%	7 09%	7 26%	7 13%	6 69%	6 40%	6 22%	6 09%
8	Southwest Gas	4 39%	4 73%	4 80%	4 90%	5 25%	5 14%	4 82%	4 57%	4 33%	4 16%	3 98%	3 90%	3 89%	3 83%	3 74%	3 80%
9	Spire Inc	5 87%	5 13%	5 25%	5 06%	5 09%	5 06%	5 07%	5 04%	5 31%	6 22%	6 30%	6 53%	6 56%	6 74%	7 33%	7 43%
10	UGI Corp	5 64%	6 72%	6 29%	4 82%	5 28%	5 65%	5 72%	5 14%	5 07%	5 35%	5 77%	5 41%	5 35%	5 72%	5 82%	6 54%
11	WGL Holdings Inc	6 86%	N/A	N/A	N/A	6 88%	7 21%	7 33%	7 14%	6 73%	6 45%	6 60%	6 57%	6 72%	6 71%	6 88%	7 13%
12	Average	5 84%	5 65%	5 74%	5 60%	5 77%	5 59%	5 78%	5 51%	5 82%	5 96%	6 02%	6 00%	5 96%	6 00%	6 04%	6 19%
13	Median	5 72%	5 66%	5 56%	4 98%	5 28%	5 14%	5 72%	5 18%	5 28%	5 80%	6 03%	5 99%	6 02%	6 41%	6 30%	6 36%

Dividends to Earnings Ratio [1]

Line	Company	15-Year Average (1)	2020 [2/b] (2)	2019 [2/b] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
14	Atmos Energy	0 57	0 49	0 48	0 49	0 50	0 50	0 50	0 50	0 56	0 66	0 60	0 62	0 67	0 65	0 66	0 63
15	Chesapeake Utilities	0 49	0 42	0 46	0 40	0 47	0 42	0 42	0 43	0 45	0 48	0 48	0 48	0 58	0 58	0 61	0 67
16	New Jersey Resources	0 55	0 67	0 61	0 41	0 60	0 61	0 52	0 41	0 59	0 57	0 56	0 55	0 52	0 41	0 65	0 51
17	NiSource Inc	0 85	0 66	0 64	0 60	1 79	0 64	1 32	0 61	0 62	0 69	0 88	0 87	1 10	0 69	0 81	0 81
18	Northwest Nat Gas	0 63	0 85	0 90	0 81	- 0 97	0 88	0 95	0 86	0 82	0 81	0 73	0 62	0 57	0 59	0 52	0 59
19	ONE Gas Inc	0 54	0 61	0 57	0 57	0 56	0 53	0 54	0 41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	South Jersey Inds	0 64	0 73	1 05	0 82	0 89	0 79	0 71	0 61	0 59	0 54	0 52	0 50	0 51	0 49	0 48	0 37
21	Southwest Gas	0 50	0 57	0 58	0 57	0 55	0 57	0 55	0 49	0 42	0 41	0 44	0 44	0 49	0 65	0 44	0 41
22	Spire Inc	0 69	1 73	0 67	0 52	0 61	0 60	0 58	0 75	0 84	0 59	0 56	0 65	0 52	0 56	0 63	0 59
23	UGI Corp	0 44	0 52	0 50	0 37	0 42	0 45	0 44	0 41	0 46	0 60	0 50	0 38	0 33	0 38	0 41	0 41
24	WGL Holdings Inc	0 64	N/A	N/A	N/A	0 65	0 59	0 58	0 64	0 72	0 59	0 69	0 66	0 58	0 58	0 65	0 69
25	Average	0 60	0 72	0 65	0 55	0 55	0 60	0 65	0 56	0 61	0 59	0 59	0 58	0 59	0 56	0 59	0 57
26	Median	0 58	0 63	0 59	0 54	0 56	0 59	0 55	0 50	0 59	0 59	0 56	0 58	0 54	0 58	0 62	0 59

Cash Flow to Capital Spending Ratio [1]

Line	Company	15-Year Average (1)	2020 [2/c] (2)	2019 [2/c] (3)	2018 (4)	2017 (5)	2016 (6)	2015 (7)	2014 (8)	2013 (9)	2012 (10)	2011 (11)	2010 (12)	2009 (13)	2008 (14)	2007 (15)	2006 (16)
27	Atmos Energy	0 67	0 52	0 53	0 55	0 62	0 59	0 60	0 65	0 55	0 59	0 68	0 77	0 78	0 81	0 94	0 82
28	Chesapeake Utilities	0 72	0 67	0 62	0 39	0 50	0 50	0 53	0 71	0 65	0 79	1 12	1 10	1 14	0 83	0 82	0 45
29	New Jersey Resources	1 29	0 62	0 51	0 85	0 70	0 59	0 67	1 79	1 46	1 48	1 51	1 55	1 75	2 11	1 67	2 14
30	NiSource Inc	0 77	0 66	0 61	0 58	0 41	0 59	0 53	0 56	0 57	0 65	0 75	1 11	1 06	0 94	1 11	1 37
31	Northwest Nat Gas	0 95	0 60	0 69	0 71	0 14	1 01	1 12	1 15	0 98	1 01	1 33	0 55	1 02	1 35	1 21	1 34
32	ONE Gas Inc	0 85	0 81	0 89	0 84	0 87	0 92	0 86	0 79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	South Jersey Inds	0 84	0 55	0 40	0 73	0 81	0 76	0 50	0 53	0 51	0 58	0 70	0 75	1 01	1 67	1 70	1 40
34	Southwest Gas	0 86	0 70	0 53	0 56	0 68	0 83	0 84	0 99	1 05	0 90	0 82	1 37	1 28	0 85	0 78	0 72
35	Spire Inc	1 09	0 45	0 44	0 77	0 72	0 96	0 92	0 98	0 78	0 95	1 53	1 61	1 93	1 64	1 42	1 28
36	UGI Corp	1 46	1 40	1 22	1 64	1 29	1 35	1 48	1 53	1 32	1 52	1 28	1 36	1 52	1 72	1 62	1 69
37	WGL Holdings Inc	1 02	N/A	N/A	N/A	0 61	0 56	0 60	0 63	0 71	0 93	1 02	1 60	1 60	1 60	1 17	1 18
38	Average	0 97	0 70	0 64	0 76	0 67	0 79	0 79	0 94	0 86	0 94	1 07	1 18	1 31	1 35	1 24	1 24
39	Median	0 93	0 64	0 57	0 72	0 68	0 76	0 67	0 79	0 74	0 92	1 07	1 23	1 21	1 48	1 19	1 31

Sources
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019
[2] The Value Line Investment Survey, Nov 28, 2020
Notes
[a] Based on the projected Dividends Declared per share and Book Value per share, published in The Value Line Investment Survey
[b] Based on the projected Dividends Declared per share and Earnings per share, published in The Value Line Investment Survey
[c] Based on the projected Cash Flow per share and Capital Spending per share, published in The Value Line Investment Survey

Southwestern Electric Power Company

Proxy Group

Line	Company	Credit Ratings[1]		Common Equity Ratios	
		S&P	**Moody's**	**MI[1]**	**Value Line[2]**
		(1)	**(2)**	**(3)**	**(4)**
1	ALLETE, Inc.	BBB	Baa1	56 1%	61.4%
2	Alliant Energy Corporation	A-	Baa2	43 5%	48.5%
3	Ameren Corporation	BBB+	Baa1	44.7%	47.1%
4	Duke Energy Corporation	BBB+	Baa1	40.5%	44.1%
5	Edison International	BBB	Baa3	37.9%	39 9%
6	Entergy Corporation	BBB+	Baa2	33.4%	37.1%
7	IDACORP, Inc.	BBB	Baa1	57.2%	58.7%
8	NorthWestern Corporation	BBB	Baa2	47.5%	47.5%
9	OGE Energy Corp.	BBB+	Baa1	55.2%	56.4%
10	Otter Tail Corporation	BBB	Baa2	52.1%	53.1%
11	Pinnacle West Capital Corporation	A-	A3	47.8%	52.9%
12	Portland General Electric Company	BBB+	A3	48.1%	48.7%
13	Xcel Energy Inc.	A-	Baa1	39.2%	43.2%
14	**Average**	**BBB+**	**Baa1**	**46.4%**	**49.1%**
15	**Southwestern Electric Power Company**	**A-[3]**	**Baa2[3]**		**49.4%[4]**

Sources:

[1] S&P Global Market Intelligence, Downloaded on March 8, 2021.

[2] *The Value Line Investment Survey*, December 11, 2020, January 22, and February 12, 2021.

[3] D'Ascendis Direct at 56.

[4] D'Ascendis Direct at 5.

Southwestern Electric Power Company

Consensus Analysts' Growth Rates

| Line | Company | Zacks | | MI | | Yahoo! Finance | | Average of Growth Rates |
| | | Estimated Growth %[1] | Number of Estimates | Estimated Growth %[2] | Number of Estimates | Estimated Growth %[3] | Number of Estimates | |
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	ALLETE, Inc.	N/A	N/A	6.00%	4	7.00%	N/A	6.50%
2	Alliant Energy Corporation	5.80%	N/A	5.79%	4	5.70%	N/A	5.76%
3	Ameren Corporation	6.80%	N/A	6.77%	7	6.60%	N/A	6.72%
4	Duke Energy Corporation	5.20%	N/A	5.24%	5	4.99%	N/A	5.14%
5	Edison International	3.10%	N/A	4.03%	4	- 0.50%	N/A	3.57%
6	Entergy Corporation	5.20%	N/A	5.58%	3	5.15%	N/A	5.31%
7	IDACORP, Inc.	2.60%	N/A	3.03%	4	2.60%	N/A	2.74%
8	NorthWestern Corporation	5.30%	N/A	4.82%	4	4.66%	N/A	4.93%
9	OGE Energy Corp.	3.60%	N/A	2.28%	3	2.10%	N/A	2.66%
10	Otter Tail Corporation	N/A	N/A	6.55%	2	9.00%	N/A	7.78%
11	Pinnacle West Capital Corporation	3.50%	N/A	3.29%	4	3.50%	N/A	3.43%
12	Portland General Electric Company	13.40%	N/A	4.68%	4	13.40%	N/A	10.49%
13	Xcel Energy Inc.	6.10%	N/A	5.43%	5	6.20%	N/A	5.91%
14	**Average**	**5.51%**	**N/A**	**4.88%**	**4**	**5.91%**	**N/A**	**5.46%**

Sources:

[1] Zacks, http://www.zacks.com/, downloaded on February 26, 2021.

[2] S&P Global Market Intelligence, https://platform.mi.spglobal.com, downloaded on February 26, 2021.

[3] Yahoo! Finance, https://finance.yahoo.com/, downloaded on February 26, 2021.

Note: Negative growth rates are not included in averages.

Southwestern Electric Power Company

Constant Growth DCF Model
(Consensus Analysts' Growth Rates)

Line	Company	13-Week AVG Stock Price[1] (1)	Analysts' Growth[2] (2)	Annualized Dividend[3] (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	ALLETE, Inc.	$62.66	6.50%	$2.47	4.20%	10.70%
2	Alliant Energy Corporation	$49.91	5 76%	$1.52	3.22%	8.98%
3	Ameren Corporation	$75 10	6.72%	$2.06	2.93%	9 65%
4	Duke Energy Corporation	$90 99	5.14%	$3.86	4.46%	9 60%
5	Edison International	$60 14	3.57%	$2.65	4.56%	8 13%
6	Entergy Corporation	$97.29	5.31%	$3.80	4.11%	9.42%
7	IDACORP, Inc.	$90.78	2.74%	$2.84	3.21%	5 96%
8	NorthWestern Corporation	$56 90	4.93%	$2.40	4.43%	9.35%
9	OGE Energy Corp.	$31.54	2.66%	$1.61	5 24%	7.90%
10	Otter Tail Corporation	$41 83	7 78%	$1.48	3.81%	11.59%
11	Pinnacle West Capital Corporation	$78.02	3.43%	$3.32	4.40%	7 83%
12	Portland General Electric Company	$42 15	10.49%	$1.63	4.27%	14.77%
13	Xcel Energy Inc	$64.42	5.91%	$1.72	2 83%	8.74%
14	**Average**	**$64.75**	**5.46%**	**$2.41**	**3.98%**	**9.43%**
15	**Median**					**9.35%**

Sources:

[1] S&P Global Market Intelligence, Downloaded on March 8, 2021.

[2] Exhibit MPG-4.

[3] *The Value Line Investment Survey*, December 11, 2020, January 22, and February 12, 2021

Southwestern Electric Power Company

Payout Ratios

		Dividends Per Share		Earnings Per Share		Payout Ratio	
Line	Company	2019 (1)	Projected (2)	2019 (3)	Projected (4)	2019 (5)	Projected (6)
1	ALLETE, Inc	$2 35	$2 80	$3 33	$4 25	70 57%	65.88%
2	Alliant Energy Corporation	$1.42	$1.96	$2 33	$3 00	60 94%	65 33%
3	Ameren Corporation	$1.92	$2.45	$3.35	$4 50	57.31%	54.44%
4	Duke Energy Corporation	$3 75	$4.25	$5.07	$6.25	73.96%	68 00%
5	Edison International	$2.48	$3 00	$3 98	$4 75	62 31%	63 16%
6	Entergy Corporation	$3 66	$4 55	$6 30	$7 00	58 10%	65 00%
7	IDACORP, Inc.	$2.56	$3.50	$4.61	$5.75	55.53%	60.87%
8	NorthWestern Corporation	$2.30	$2.75	$3.53	$4.00	65.16%	68 75%
9	OGE Energy Corp	$1.51	$1.95	$2.24	$2.50	67.41%	78.00%
10	Otter Tail Corporation	$1.40	$1.80	$2 17	$3 00	64 52%	60 00%
11	Pinnacle West Capital Corporation	$3 04	$4 05	$4 77	$6 00	63 73%	67 50%
12	Portland General Electric Company	$1.52	$2.00	$2 39	$3.00	63.60%	66.67%
13	Xcel Energy Inc	$1 62	$2.15	$2.64	$3.50	61.36%	61.43%
14	**Average**	**$2.27**	**$2.86**	**$3.59**	**$4.42**	**63.42%**	**65.00%**

Source·
The Value Line Investment Survey, December 11, 2020, January 22, and February 12, 2021

Southwestern Electric Power Company

Sustainable Growth Rate

| Line | Company | 3 to 5 Year Projections | | | | | | | | | | Sustainable |
		Dividends Per Share (1)	Earnings Per Share (2)	Book Value Per Share (3)	Book Value Growth (4)	ROE (5)	Adjustment Factor (6)	Adjusted ROE (7)	Payout Ratio (8)	Retention Rate (9)	Internal Growth Rate (10)	Growth Rate (11)
1	ALLETE, Inc.	$2 80	$4 25	$51 25	3.49%	8.29%	1.02	8 43%	65 88%	34.12%	2.88%	3 31%
2	Alliant Energy Corporation	$1.96	$3 00	$28.45	6.02%	10.54%	1.03	10.85%	65.33%	34 67%	3.76%	5.89%
3	Ameren Corporation	$2.45	$4.50	$44.50	6.34%	10.11%	1 03	10.42%	54.44%	45,56%	4.75%	7.16%
4	Duke Energy Corporation	$4 25	$6.25	$68 75	1 96%	9.09%	1.01	9.18%	68 00%	32.00%	2.94%	3 27%
5	Edison International	$3.00	$4.75	$44 00	3 67%	10 80%	1.02	10.99%	63.16%	36 84%	4 05%	5.17%
6	Entergy Corporation	$4 55	$7.00	$64.50	4.67%	10.85%	1.02	11.10%	65 00%	35 00%	3.89%	4 84%
7	IDACORP, Inc.	$3 50	$5.75	$58 75	3 75%	9 79%	1.02	9 97%	60 87%	39 13%	3 90%	3 91%
8	NorthWestern Corporation	$2 75	$4.00	$45 75	2.51%	8.74%	1.01	8 85%	68 75%	31 25%	2 77%	3 17%
9	OGE Energy Corp.	$1 95	$2.50	$20 75	0.06%	12 05%	1.00	12.05%	78 00%	22.00%	2.65%	2.65%
10	Otter Tail Corporation	$1.80	$3.00	$24.50	4.71%	12 24%	1 02	12.53%	60.00%	40.00%	5.01%	6.05%
11	Pinnacle West Capital Corporation	$4.05	$6.00	$58.00	3.73%	10.34%	1 02	10.53%	67.50%	32.50%	3.42%	4.02%
12	Portland General Electric Company	$2 00	$3.00	$33 00	2.62%	9.09%	1.01	9.21%	66.67%	33.33%	3.07%	3.13%
13	Xcel Energy Inc.	$2.15	$3.50	$33.25	5 67%	10.53%	1 03	10.82%	61.43%	38 57%	4.17%	5 93%
14	**Average**	**$2.86**	**$4.42**	**$44.27**	**3.78%**	**10.19%**	**1.02**	**10.38%**	**65.00%**	**35.00%**	**3.63%**	**4.50%**

Sources and Notes

Cols. (1), (2) and (3) *The Value Line Investment Survey*, December 11, 2020, January 22, and February 12, 2021
Col. (4)· [Col. (3) / Page 2 Col (2)] ^ (1/number of years projected) - 1.
Col. (5) Col. (2) / Col. (3).
Col (6) [2 * (1 + Col (4))] / (2 + Col (4)).
Col. (7) Col. (6) * Col. (5)
Col. (8) Col. (1) / Col. (2).
Col. (9) 1 - Col (8).
Col. (10) Col. (9) * Col. (7).
Col. (11). Col. (10) + Page 2 Col (9).

Southwestern Electric Power Company

Sustainable Growth Rate

Line	Company	13-Week Average Stock Price[1] (1)	2019 Book Value Per Share[2] (2)	Market to Book Ratio (3)	Common Shares Outstanding (in Millions)[2] 2019 (4)	3-5 Years (5)	Growth (6)	S Factor[3] (7)	V Factor[4] (8)	S * V (9)
1	ALLETE, Inc.	$62.66	$43 17	1.45	51 70	54 25	0 97%	1.40%	31.11%	0.44%
2	Alliant Energy Corporation	$49 91	$21.24	2 35	245.02	265.00	1.58%	3 71%	57.44%	2 13%
3	Ameren Corporation	$75.10	$32 73	2.29	246.20	270.00	1 86%	4 27%	56.42%	2.41%
4	Duke Energy Corporation	$90 99	$61.20	1.49	733.00	764 00	0 69%	1.03%	32 74%	0.34%
5	Edison International	$60.14	$36.75	1.64	361.99	395 00	1.76%	2 88%	38.89%	1.12%
6	Entergy Corporation	$97 29	$51.34	1.90	199 15	210 00	1 07%	2 02%	47.23%	0.95%
7	IDACORP, Inc.	$90 78	$48.88	1.86	50 42	50 45	0.01%	0.02%	46.16%	0.01%
8	NorthWestern Corporation	$56 90	$40.42	1.41	50.45	53.00	0.99%	1.40%	28.96%	0.40%
9	OGE Energy Corp	$31 54	$20 69	1.52	200.10	200 00	- 0.01%	- 0.02%	34.40%	- 0.01%
10	Otter Tail Corporation	$41 83	$19 46	2 15	40.16	42.00	0.90%	1.93%	53.48%	1 03%
11	Pinnacle West Capital Corporation	$78.02	$48 30	1 62	112.44	118.00	0.97%	1 57%	38 09%	0 60%
12	Portland General Electric Company	$42.15	$28.99	1.45	89.39	90.00	0.14%	0.20%	31.23%	0.06%
13	Xcel Energy Inc.	$64.42	$25.24	2.55	524.54	555.00	1 14%	2 90%	60.82%	1.76%
14	**Average**	**$64.75**	**$36.80**	**1.82**	**223.43**	**235.90**	**1.01%**	**1.94%**	**42.84%**	**0.94%**

Sources and Notes.
[1] S&P Global Market Intelligence, Downloaded on March 8, 2021.
[2] *The Value Line Investment Survey*, December 11, 2020, January 22, and February 12, 2021.
[3] Expected Growth in the Number of Shares, Column (3) * Column (6).
[4] Expected Profit of Stock Investment, [1 - 1 / Column (3)].

Southwestern Electric Power Company

## Constant Growth DCF Model
(Sustainable Growth Rate)

Line	Company	13-Week AVG Stock Price[1] (1)	Sustainable Growth[2] (2)	Annualized Dividend[3] (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	ALLETE, Inc.	$62.66	3.31%	$2.47	4.07%	7.39%
2	Alliant Energy Corporation	$49.91	5.89%	$1.52	3.23%	9.12%
3	Ameren Corporation	$75.10	7 16%	$2.06	2.94%	10.10%
4	Duke Energy Corporation	$90.99	3.27%	$3.86	4.38%	7.66%
5	Edison International	$60.14	5.17%	$2.65	4.63%	9.80%
6	Entergy Corporation	$97.29	4.84%	$3.80	4.09%	8.93%
7	IDACORP, Inc.	$90.78	3.91%	$2.84	3.25%	7.16%
8	NorthWestern Corporation	$56.90	3.17%	$2.40	4.35%	7.52%
9	OGE Energy Corp.	$31.54	2.65%	$1.61	5.24%	7.89%
10	Otter Tail Corporation	$41.83	6.05%	$1.48	3.75%	9.80%
11	Pinnacle West Capital Corporation	$78.02	4.02%	$3.32	4.43%	8.45%
12	Portland General Electric Company	$42.15	3.13%	$1.63	3.99%	7.12%
13	Xcel Energy Inc.	$64.42	5.93%	$1.72	2.83%	8.76%
14	**Average**	**$64.75**	**4.50%**	**$2.41**	**3.94%**	**8.44%**
15	**Median**					**8.45%**

Sources:
[1] S&P Global Market Intelligence, Downloaded on March 8, 2021.
[2] Exhibit MPG-4.
[3] *The Value Line Investment Survey*, December 11, 2020, January 22, and February 12, 2021.

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<u>Electricity Sales Are Linked to U.S. Economic Growth</u>
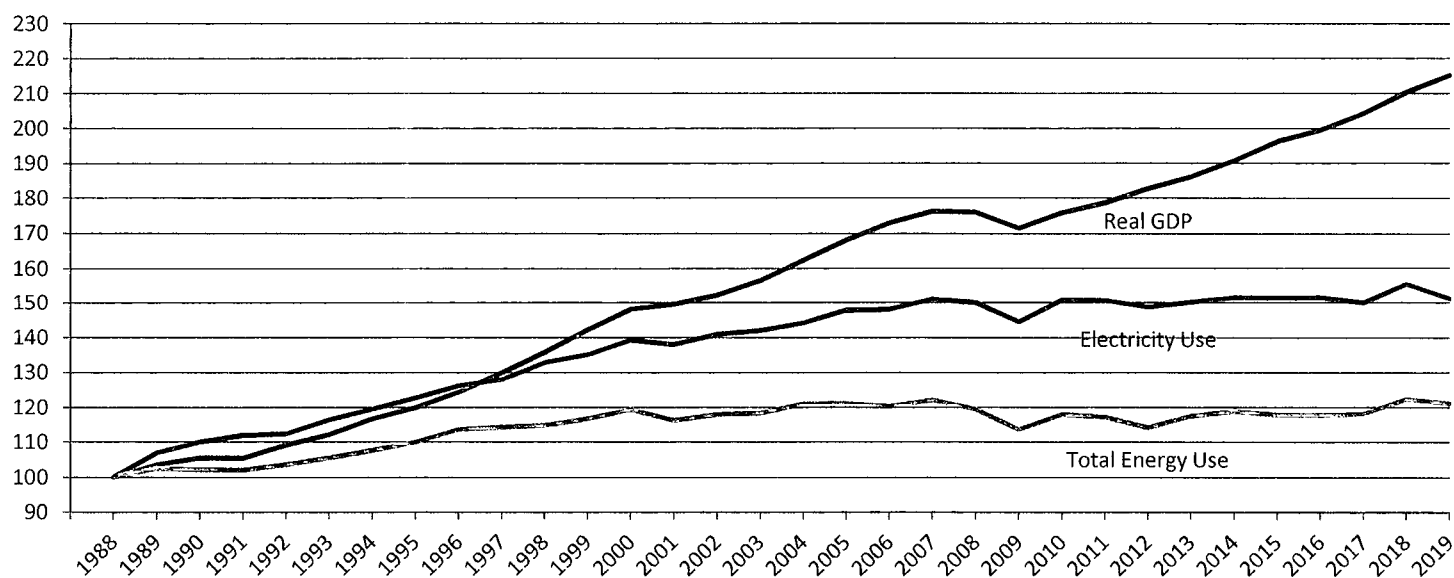
Note:
1988 represents the base year. Graph depicts increases or decreases from the base year.

Sources:
U.S. Energy Information Administration
Federal Reserve Bank of St. Louis

# Southwestern Electric Power Company

Multi-Stage Growth DCF Model

Line	Company	13-Week AVG Stock Price[1] (1)	Annualized Dividend[2] (2)	First Stage Growth[3] (3)	Second Stage Growth					Third Stage Growth[4] (9)	Multi-Stage Growth DCF (10)
					Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)		
1	ALLETE, Inc.	$62 66	$2.47	6 50%	6 14%	5.78%	5 42%	5.06%	4.71%	4 35%	9 04%
2	Alliant Energy Corporation	$49.91	$1.52	5.76%	5.53%	5 29%	5 05%	4.82%	4.58%	4.35%	7.82%
3	Ameren Corporation	$75 10	$2.06	6.72%	6.33%	5 93%	5 53%	5.14%	4 74%	4.35%	7.68%
4	Duke Energy Corporation	$90 99	$3.86	5.14%	5.01%	4 88%	4.74%	4 61%	4.48%	4.35%	9.00%
5	Edison International	$60.14	$2.65	3 57%	3 70%	3.83%	3.96%	4.09%	4.22%	4 35%	8.72%
6	Entergy Corporation	$97.29	$3.80	5.31%	5.15%	4.99%	4.83%	4.67%	4 51%	4 35%	8 67%
7	IDACORP, Inc	$90.78	$2.84	2.74%	3 01%	3 28%	3 54%	3.81%	4.08%	4 35%	7.27%
8	NorthWestern Corporation	$56.90	$2 40	4.93%	4 83%	4 73%	4 64%	4.54%	4 44%	4 35%	8.91%
9	OGE Energy Corp.	$31 54	$1.61	2.66%	2 94%	3 22%	3 50%	3 78%	4 07%	4 35%	9.14%
10	Otter Tail Corporation	$41.83	$1.48	7.78%	7 20%	6 63%	6 06%	5.49%	4.92%	4 35%	8.91%
11	Pinnacle West Capital Corporation	$78 02	$3.32	3.43%	3 58%	3.74%	3.89%	4 04%	4.19%	4.35%	8 54%
12	Portland General Electric Company	$42 15	$1.63	10.49%	9 47%	8 44%	7 42%	6.40%	5.37%	4 35%	10.17%
13	Xcel Energy Inc	$64.42	$1 72	5 91%	5 65%	5 39%	5.13%	4 87%	4 61%	4.35%	7 42%
14	**Average**	**$64.75**	**$2.41**	**5.46%**	**5.27%**	**5.09%**	**4.90%**	**4.72%**	**4.53%**	**4.35%**	**8.56%**
15	**Median**										**8.72%**

Sources:
[1] S&P Global Market Intelligence, Downloaded on March 8, 2021
[2] *The Value Line Investment Survey*, December 11, 2020, January 22, and February 12, 2021.
[3] Exhibit MPG-4
[4] *Blue Chip Financial Forecasts*, December 1, 2020 at 14

Southwestern Electric Power Company

Common Stock Market/Book Ratio
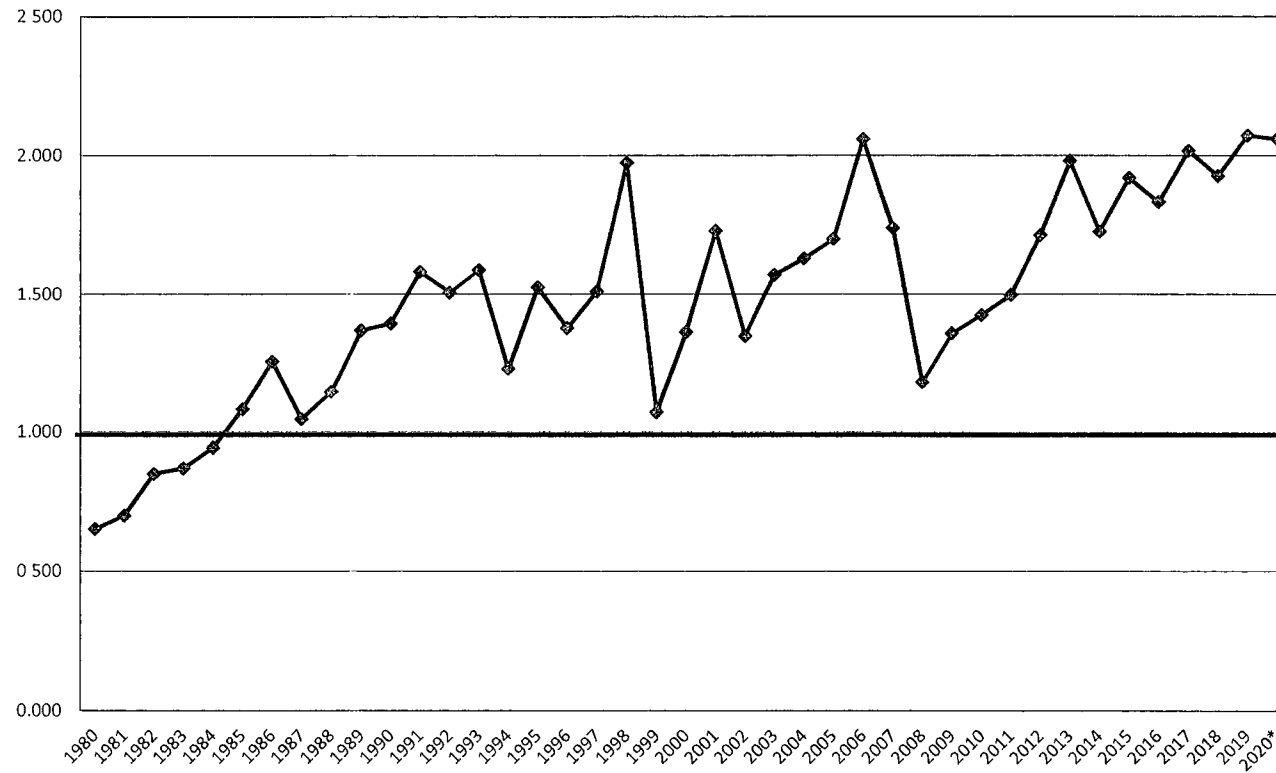
Source:
1980 - 2000: Mergent Public Utility Manual.
2001 - 2015. AUS Utility Reports, multiple dates.
2016 - 2019: Value Line Investment Survey, multiple dates.
* Value Line Investment Survey Reports, November 27, December 11, 2020, and January 22, February 12, 2021.

Southwestern Electric Power Company

Equity Risk Premium - Treasury Bond

Line	Year	Authorized Electric Returns[1] (1)	30 yr. Treasury Bond Yield[2] (2)	Indicated Risk Premium (3)	Rolling 5 - Year Average (4)	Rolling 10 - Year Average (5)
1	1986	13.93%	7 80%	6.13%		
2	1987	12.99%	8.58%	4.41%		
3	1988	12 79%	8 96%	3.83%		
4	1989	12.97%	8.45%	4 52%		
5	1990	12.70%	8.61%	4 09%	4.60%	
6	1991	12.55%	8.14%	4.41%	4.25%	
7	1992	12.09%	7 67%	4.42%	4 26%	
8	1993	11.41%	6.60%	4.81%	4.45%	
9	1994	11.34%	7 37%	3.97%	4 34%	
10	1995	11.55%	6 88%	4.67%	4 46%	4.53%
11	1996	11.39%	6 70%	4.69%	4 51%	4.38%
12	1997	11 40%	6.61%	4.79%	4.59%	4.42%
13	1998	11 66%	5.58%	6.08%	4.84%	4.65%
14	1999	10 77%	5.87%	4.90%	5.03%	4.68%
15	2000	11 43%	5.94%	5.49%	5 19%	4.82%
16	2001	11.09%	5.49%	5.60%	5 37%	4.94%
17	2002	11.16%	5.43%	5 73%	5.56%	5.07%
18	2003	10.97%	4.96%	6 01%	5.55%	5.19%
19	2004	10.75%	5.05%	5 70%	5.71%	5.37%
20	2005	10.54%	4.65%	5 89%	5.79%	5.49%
21	2006	10.34%	4 87%	5.47%	5 76%	5.57%
22	2007	10.31%	4.83%	5.48%	5.71%	5.64%
23	2008	10 37%	4.28%	6.09%	5.73%	5.64%
24	2009	10.52%	4.07%	6.45%	5 88%	5 79%
25	2010	10.29%	4.25%	6.04%	5.90%	5.85%
26	2011	10.19%	3.91%	6 28%	6 07%	5.91%
27	2012	10.01%	2.92%	7 09%	6 39%	6.05%
28	2013	9.81%	3.45%	6 36%	6.44%	6.09%
29	2014	9.75%	3 34%	6 41%	6.44%	6.16%
30	2015	9.60%	2.84%	6 76%	6.58%	6.24%
31	2016	9 60%	2.60%	7.00%	6.72%	6.40%
32	2017	9.68%	2.90%	6.79%	6 66%	6.53%
33	2018	9.55%	3 11%	6 44%	6.68%	6.56%
34	2019	9.64%	2.58%	7.06%	6.81%	6.62%
35	2020	9.39%	1 56%	7.83%	7 02%	6.80%
36	**Average**	**10.99%**	**5.34%**	**5.65%**	**5.59%**	**5.59%**
37	**Minimum**				**4.25%**	**4.38%**
38	**Maximum**				**7.02%**	**6.80%**

Sources.

[1] *Regulatory Research Associates, Inc.*, Regulatory Focus, Major Rate Case Decisions, Jan. 1997 p 5, and Jan 2011 p. 3.
S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January - December 2020,
February 2, 2021, p. 1
2006 - 2019 Authorized Returns exclude limited issue rider cases.
[2] St Louis Federal Reserve Economic Research, http.//research.stlouisfed.org/.
The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank

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Equity Risk Premium - Utility Bond

Line	Year	Authorized Electric Returns[1] (1)	Average "A" Rated Utility Bond Yield[2] (2)	Indicated Risk Premium (3)	Rolling 5 - Year Average (4)	Rolling 10 - Year Average (5)
1	1986	13.93%	9.58%	4.35%		
2	1987	12.99%	10.10%	2.89%		
3	1988	12.79%	10 49%	2 30%		
4	1989	12.97%	9.77%	3.20%		
5	1990	12.70%	9.86%	2 84%	3 12%	
6	1991	12.55%	9 36%	3.19%	2 88%	
7	1992	12.09%	8.69%	3.40%	2 99%	
8	1993	11.41%	7.59%	3.82%	3.29%	
9	1994	11.34%	8 31%	3 03%	3.26%	
10	1995	11.55%	7.89%	3.66%	3.42%	3 27%
11	1996	11.39%	7.75%	3 64%	3 51%	3 20%
12	1997	11.40%	7.60%	3 80%	3 59%	3 29%
13	1998	11 66%	7.04%	4 62%	3.75%	3 52%
14	1999	10.77%	7 62%	3 15%	3 77%	3 52%
15	2000	11.43%	8 24%	3.19%	3.68%	3.55%
16	2001	11.09%	7 76%	3.33%	3.62%	3.56%
17	2002	11.16%	7 37%	3 79%	3 61%	3.60%
18	2003	10.97%	6.58%	4 39%	3 57%	3 66%
19	2004	10.75%	6 16%	4.59%	3.86%	3.82%
20	2005	10.54%	5 65%	4 89%	4 20%	3.94%
21	2006	10.34%	6 07%	4.27%	4 39%	4.00%
22	2007	10.31%	6.07%	4.24%	4.48%	4 04%
23	2008	10.37%	6 53%	3.84%	4.37%	3 97%
24	2009	10.52%	6 04%	4.48%	4 34%	4 10%
25	2010	10.29%	5 47%	4.82%	4.33%	4.26%
26	2011	10.19%	5 04%	5.15%	4.51%	4 45%
27	2012	10.01%	4.13%	5.88%	4 83%	4.66%
28	2013	9.81%	4.48%	5 33%	5 13%	4.75%
29	2014	9.75%	4 28%	5.47%	5.33%	4.84%
30	2015	9 60%	4 12%	5 48%	5 46%	4.90%
31	2016	9 60%	3 93%	5 67%	5 57%	5 04%
32	2017	9.68%	4.00%	5.68%	5.53%	5 18%
33	2018	9.55%	4 25%	5.30%	5.52%	5 33%
34	2019	9 64%	3 77%	5 87%	5.60%	5 47%
35	2020	9.39%	3.05%	6.34%	5.77%	5 62%
36	**Average**	**10.99%**	**6.70%**	**4.28%**	**4.23%**	**4.21%**
37	**Minimum**				**2.88%**	**3.20%**
38	**Maximum**				**5.77%**	**5.62%**

Sources:

[1] *Regulatory Research Associates, Inc* , Regulatory Focus, Major Rate Case Decisions, Jan 1997 p 5, and Jan. 2011 p. 3.
S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January - December 2020,
February 2, 2021, p 1
2006 - 2019 Authorized Returns exclude limited issue rider cases.

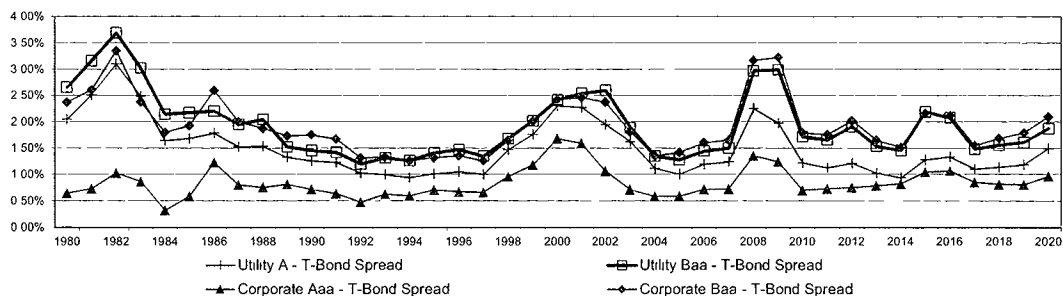[2] St. Louis Federal Reserve: Economic Research, http.//research stlouisfed org/
The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank

Southwestern Electric Power Company

Bond Yield Spreads

Line	Year	T-Bond Yield[1] (1)	Public Utility Bond				Corporate Bond				Utility to Corporate	
			A[2] (2)	Baa[2] (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Aaa[3] (6)	Baa[3] (7)	Aaa-T-Bond Spread (8)	Baa-T-Bond Spread (9)	Baa Spread (10)	A-Aaa Spread (11)
1	1980	11 30%	13 34%	13 95%	2 04%	2 65%	11 94%	13 67%	0.64%	2 37%	0 28%	1 40%
2	1981	13 44%	15 95%	16 60%	2 51%	3 16%	14 17%	16.04%	0.73%	2.60%	0 56%	1 78%
3	1982	12 76%	15 86%	16 45%	3 10%	3 69%	13 79%	16 11%	1 03%	3 35%	0 34%	2 07%
4	1983	11 18%	13 66%	14 20%	2 48%	3 02%	12 04%	13 55%	0 86%	2 38%	0 65%	1 62%
5	1984	12 39%	14 03%	14 53%	1 64%	2 14%	12 71%	14.19%	0.32%	1.80%	0 34%	1 32%
6	1985	10 79%	12 47%	12 96%	1 68%	2 17%	11 37%	12 72%	0 58%	1 93%	0 24%	1 10%
7	1986	7 80%	9 58%	10 00%	1 78%	2 20%	9 02%	10.39%	1 22%	2.59%	-0 39%	0 56%
8	1987	8.58%	10 10%	10 53%	1 52%	1 95%	9 38%	10.58%	0 80%	2.00%	-0 05%	0 72%
9	1988	8 96%	10 49%	11 00%	1 53%	2 04%	9 71%	10.83%	0 75%	1 87%	0 17%	0 78%
10	1989	8 45%	9 77%	9 97%	1.32%	1 52%	9.26%	10.18%	0.81%	1.73%	-0 21%	0 51%
11	1990	8 61%	9 86%	10 06%	1 25%	1 45%	9 32%	10 36%	0 71%	1 75%	-0 30%	0 54%
12	1991	8 14%	9 36%	9 55%	1 22%	1 41%	8 77%	9 80%	0 63%	1 67%	-0.25%	0.59%
13	1992	7.67%	8 69%	8 86%	1 02%	1.19%	8 14%	8.98%	0.47%	1.31%	-0 12%	0 55%
14	1993	6 60%	7 59%	7 91%	0 99%	1 31%	7 22%	7.93%	0 62%	1 33%	-0 02%	0 37%
15	1994	7.37%	8 31%	8 63%	0 94%	1.26%	7.96%	8 62%	0 59%	1 25%	0 01%	0.35%
16	1995	6.88%	7.89%	8.29%	1 01%	1 41%	7 59%	8 20%	0.71%	1 32%	0 09%	0 30%
17	1996	6.70%	7.75%	8.17%	1.05%	1 47%	7 37%	8.05%	0.67%	1 35%	0 12%	0 38%
18	1997	6 61%	7 60%	7 95%	0 99%	1.34%	7 26%	7 86%	0.66%	1 26%	0 09%	0 34%
19	1998	5 58%	7 04%	7 26%	1 46%	1 68%	6 53%	7 22%	0 95%	1 64%	0 04%	0 51%
20	1999	5 87%	7 62%	7 88%	1.75%	2 01%	7 04%	7 87%	1 18%	2 01%	0 01%	0 58%
21	2000	5.94%	8 24%	8.36%	2 30%	2 42%	7 62%	8 36%	1 68%	2 42%	-0 01%	0 62%
22	2001	5.49%	7.76%	8.03%	2.27%	2 54%	7.08%	7.95%	1.59%	2 45%	0 08%	0 68%
23	2002	5 43%	7 37%	8 02%	1 94%	2 59%	6 49%	7 80%	1 06%	2 37%	0 22%	0 88%
24	2003	4 96%	6 58%	6 84%	1 62%	1 89%	5 67%	6 77%	0 71%	1 81%	0 08%	0 91%
25	2004	5.05%	6 16%	6.40%	1.11%	1.35%	5 63%	6 39%	0 58%	1 35%	0 00%	0 53%
26	2005	4 65%	5 65%	5.93%	1.00%	1 28%	5 24%	6 06%	0 59%	1 42%	-0 14%	0 41%
27	2006	4.87%	6 07%	6 32%	1 20%	1.44%	5 59%	6 48%	0 71%	1 61%	-0 16%	0 48%
28	2007	4 83%	6 07%	6 33%	1 24%	1 50%	5 56%	6 48%	0 72%	1 65%	-0 15%	0 52%
29	2008	4 28%	6 53%	7 25%	2 25%	2 97%	5 63%	7.45%	1 35%	3 17%	-0 20%	0 90%
30	2009	4 07%	6 04%	7 06%	1 97%	2.99%	5 31%	7 30%	1 24%	3 23%	-0 24%	0 73%
31	2010	4 25%	5 47%	5 96%	1 22%	1 71%	4.95%	6.04%	0.70%	1 79%	-0 08%	0 52%
32	2011	3 91%	5 04%	5 57%	1 13%	1 66%	4 64%	5 67%	0 73%	1 76%	-0 10%	0 40%
33	2012	2 92%	4 13%	4 83%	1 21%	1 90%	3.67%	4.94%	0.75%	2.02%	-0 11%	0 46%
34	2013	3 45%	4 48%	4 98%	1 03%	1 53%	4 24%	5 10%	0 79%	1 65%	-0 12%	0.24%
35	2014	3 34%	4 28%	4 80%	0 94%	1 46%	4 16%	4 86%	0 82%	1 52%	-0 06%	0.12%
36	2015	2 84%	4 12%	5 03%	1 27%	2 19%	3 89%	5.00%	1.05%	2 16%	0 03%	0 23%
37	2016	2 60%	3 93%	4 67%	1 33%	2 08%	3 66%	4 71%	1 07%	2 12%	-0 04%	0 27%
38	2017	2 90%	4 00%	4 38%	1 10%	1 48%	3 74%	4 44%	0 85%	1 55%	-0.06%	0.26%
39	2018	3 11%	4 25%	4 67%	1 14%	1 56%	3 93%	4 80%	0 82%	1 69%	-0 13%	0 32%
40	2019	2 58%	3 77%	4 19%	1 18%	1 61%	3.39%	4.38%	0.81%	1 79%	-0 18%	0.38%
41	2020[4]	1 56%	3 05%	3 44%	1.49%	1 87%	2.53%	3 66%	0.96%	2 10%	-0 22%	0 53%
42	Average	6.31%	7.80%	8.24%	1.49%	1.93%	7.15%	8 24%	0.84%	1.93%	0.00%	0.65%

Yield Spreads
Treasury Vs. Corporate & Treasury Vs. Utility

—+— Utility A - T-Bond Spread   —◻— Utility Baa - T-Bond Spread
—▲— Corporate Aaa - T-Bond Spread   —◆— Corporate Baa - T-Bond Spread

Sources:
[1] St Louis Federal Reserve Economic Research, http //research stlouisfed org/
[2] The utility yields for the period 1980-2000 were obtained from Mergent Public Utility Manual, Mergent Weekly News Reports, 2003
 The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record
 The utility yields for the period 2010-2019 were obtained from http //credittrends moodys com/
[3] The corporate yields for the period 1980-2009 were obtained from the St Louis Federal Reserve Economic Research, http //research stlouisfed org/
 The corporate yields from 2010-2019 were obtained from http //credittrends moodys com/
[4] Data represents January - December, 2020

Southwestern Electric Power Company

Treasury and Utility Bond Yields

Line	Date	Treasury Bond Yield[1] (1)	"A" Rated Utility Bond Yield[2] (2)	"Baa" Rated Utility Bond Yield[2] (3)
1	02/26/21	2.17%	3.23%	3.52%
2	02/19/21	2.14%	3.16%	3.44%
3	02/12/21	2.01%	3.06%	3.35%
4	02/05/21	1.97%	3.03%	3.33%
5	01/29/21	1.87%	2.93%	3.23%
6	01/22/21	1.85%	2.92%	3.18%
7	01/15/21	1.85%	2.93%	3.20%
8	01/08/21	1.87%	2.96%	3.24%
9	12/31/20	1.65%	2.74%	3.00%
10	12/24/20	1.66%	2.77%	3.07%
11	12/18/20	1.70%	2.81%	3.08%
12	12/11/20	1.63%	2.72%	3.00%
13	12/04/20	1.73%	2.83%	3.09%
14	**Average**	**1.85%**	**2.93%**	**3.21%**
15	**Spread To Treasury**		**1.08%**	**1.36%**

Sources:

[1] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org.

[2] http://credittrends.moodys.com/.

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Trends in Bond Yields
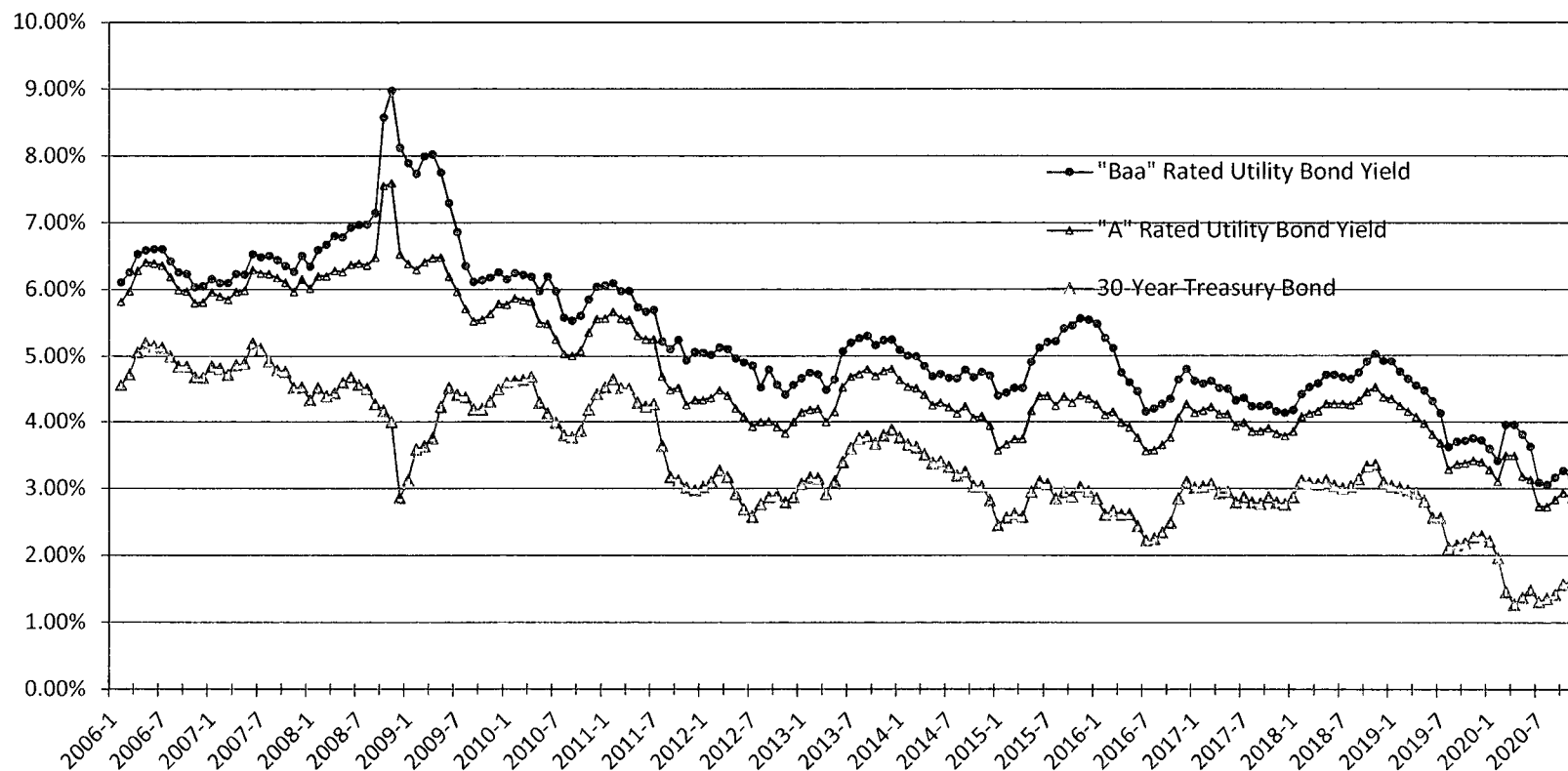
Legend:
- —●— "Baa" Rated Utility Bond Yield
- —▲— "A" Rated Utility Bond Yield
- —△— 30-Year Treasury Bond

Sources:
Mergent Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/

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Yield Spread Between Utility Bonds and 30-Year Treasury Bonds

—�◇—A Spread   —■—Baa Spread

Sources:
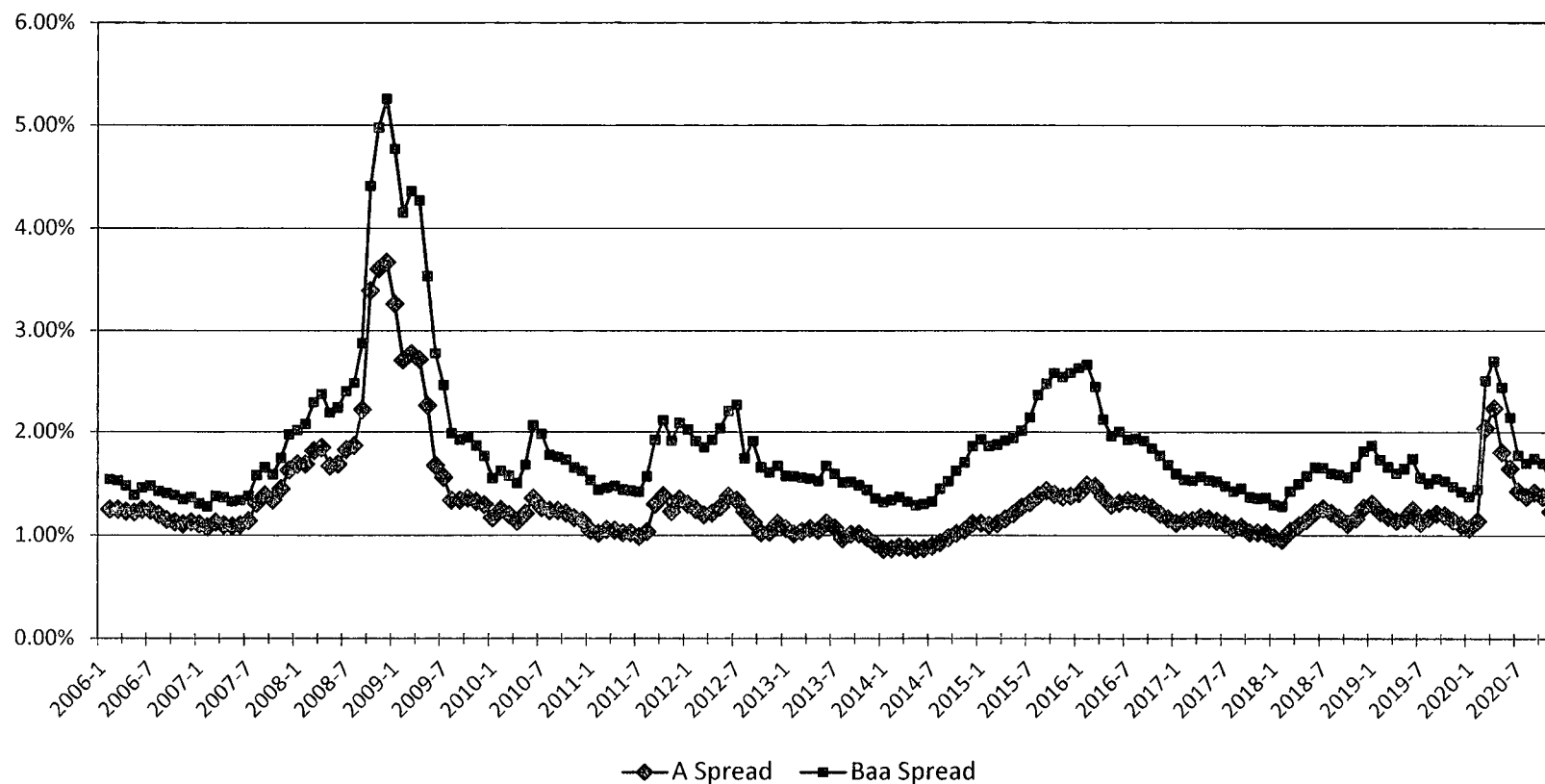Mergent Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/

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Value Line Beta

Line	Company	Beta
1	ALLETE, Inc.	0.85
2	Alliant Energy Corporation	0.85
3	Ameren Corporation	0.85
4	Duke Energy Corporation	0.85
5	Edison International	0.95
6	Entergy Corporation	0.95
7	IDACORP, Inc.	0.80
8	NorthWestern Corporation	0.95
9	OGE Energy Corp.	1.10
10	Otter Tail Corporation	0.85
11	Pinnacle West Capital Corporation	0.90
12	Portland General Electric Company	0.85
13	Xcel Energy Inc.	0.80
14	**Average**	**0.89**

Source:
The Value Line Investment Survey,
December 11, 2020, January 22, and February 12, 2021.

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Historical Betas

Line	Company	Average	3Q20	2Q20	1Q20	4Q19	3Q19	2Q19	1Q19	4Q18	3Q18	2Q18	1Q18	4Q17	3Q17	2Q17	1Q17	4Q16	3Q16	2Q16	1Q16	4Q15	3Q15	2Q15	1Q15	4Q14	3Q14
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	ALLETE, Inc	0.75	0.85	0.85	0.60	0.65	0.65	0.65	0.65	0.65	0.70	0.75	0.75	0.80	0.75	0.80	0.80	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
2	Alliant Energy Corporation	0.72	0.85	0.80	0.55	0.60	0.60	0.60	0.65	0.60	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80
3	Ameren Corporation	0.68	0.80	0.80	0.50	0.55	0.55	0.60	0.60	0.55	0.60	0.65	0.65	0.70	0.65	0.65	0.70	0.65	0.70	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
4	Duke Energy Corporation	0.59	0.85	0.85	0.45	0.50	0.50	0.50	0.50	0.55	0.55	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.50	0.60	0.60	0.60	0.60	0.60
5	Edison International	0.66	0.90	0.55	0.55	0.60	0.60	0.60	0.55	0.60	0.60	0.60	0.65	0.65	0.60	0.60	0.65	0.65	0.70	0.70	0.70	0.70	0.75	0.75	0.75	0.75	0.75
6	Entergy Corporation	0.67	0.95	0.95	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.70	0.65	0.70	0.70	0.70	0.70
7	IDACORP, Inc	0.70	0.80	0.50	0.55	0.55	0.60	0.60	0.55	0.60	0.65	0.70	0.70	0.70	0.70	0.75	0.75	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
8	NorthWestern Corporation	0.67	0.90	0.55	0.60	0.60	0.60	0.60	0.55	0.60	0.65	0.65	0.70	0.70	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.70	0.70	0.70	0.70
9	OGE Energy Corp	0.90	1.05	1.05	0.70	0.75	0.80	0.80	0.85	0.85	0.90	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.85
10	Otter Tail Corporation	0.83	0.85	0.85	0.70	0.70	0.65	0.70	0.70	0.75	0.80	0.85	0.85	0.90	0.90	0.90	0.85	0.85	0.85	0.80	0.85	0.85	0.85	0.90	0.90	0.90	0.95
11	Pinnacle West Capital Corporation	0.66	0.85	0.45	0.50	0.55	0.55	0.55	0.55	0.60	0.65	0.65	0.70	0.70	0.65	0.70	0.70	0.70	0.70	0.75	0.75	0.75	0.70	0.70	0.70	0.70	0.70
12	Portland General Electric Company	0.70	0.85	0.55	0.55	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.75
13	Xcel Energy Inc	0.60	0.75	0.45	0.50	0.50	0.50	0.50	0.50	0.55	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.65
14	Average	0.70	0.87	0.71	0.57	0.60	0.60	0.61	0.60	0.62	0.66	0.69	0.71	0.72	0.70	0.71	0.72	0.71	0.73	0.75	0.76	0.75	0.75	0.76	0.76	0.76	0.75

Source: Value Line Software Analyzer

Southwestern Electric Power Company

CAPM Return

Line	Description	Current Market Risk Premium (1)	Normalized Market Risk Premium (2)
1	Risk-Free Rate[1,2]	1.85%	2.40%
2	Risk Premium[3]	9.44%	8.90%
3	Beta[4,5]	0.89	0.70
4	**CAPM**	**10.24%**	**8.65%**

Sources:

[1] *Exhibit MPG-15, Page 1 of 3.*
[2] *Blue Chip Financial Forecasts*, March 1, 2021, at 2.
[3] *Duff & Phelps, 2020 SBBI Yearbook* at 6-17 and 6-18.
[4] Exhibit MPG-16, Page 1.
[5] Exhibit MPG-16, Page 2.

Southwestern Electric Power Company

Standard & Poor's Credit Metrics

Line	Description	TX Retail Cost of Service Amount (1)	S&P Benchmark (Medial Volatility) Intermediate (2)	Significant (3)	Aggressive (4)	Reference (5)
1	TX Rate Base	$ 2,025,542,720				Schedule A-1.
2	Weighted Common Return	4.52%				Page 2, Line 2, Col. 4
3	Pre-Tax Rate of Return	8.00%				Page 2, Line 3, Col. 5
4	Income to Common	$ 91,505,242				Line 1 x Line 2
5	EBIT	$ 162,086,043				Line 1 x Line 3.
6	Depreciation & Amortization	$ 105,928,834				Schedule A-1.
7	Imputed Amortization	$ 2,424,541				S&P Capital IQ, downloaded on March 16, 2021
8	Capitalized Interest*	$ (294,472)				Response to 4th RFI, TIEC 4-10.
9	Deferred Income Taxes & ITC	$ (128,564)				Schedule A, Workpaper A.
10	Funds from Operations (FFO)	$ 199,435,580				Sum of Line 4 and Lines 6 through 9.
11	Imputed Interest Expense	$ 5,956,837				S&P Capital IQ, downloaded on March 16, 2021.
12	EBITDA	$ 276,396,255				Sum of Lines 5 through 7 and Line 11.
13	Adjusted Debt	$ 1,047,065,141				Page 3, Line 3, Col. 1 x RB TX Allocator
14	Total Adjusted Debt Ratio	53 1%				Page 3, Line 4, Col 2
15	Debt to EBITDA	3.8x	2 5x - 3 5x	3 5x - 4 5x	4 5x - 5 5x	Line 13 / Line 12
16	FFO to Total Debt	19%	23% - 35%	13% - 23%	9% - 13%	Line 10 / Line 13
17	Indicative Credit Rating		**A**	**A-**	**BBB**	S&P Methodology, November 19, 2013

Sources.
Standard & Poor's: "Criteria Corporate Methodology," November 19, 2013
*The allocation factor was obtained from Schedule A-1

Note.
Based on the January 2021 S&P report, SWEPCO has an "A-" credit rating, an "Excellent" business profile, a "Significant" financial profile, and falls under the 'Medial Volatility' matrix.

S&P Business/Financial Risk Profile Matrix			
Business Risk Profile	Financial Risk Profile		
	3 (intermediate)	4 (significant)	5 (aggressive)
1 (excellent)	a+/a	a-	bbb
2 (strong)	a-/bbb+	bbb	bb+
3 (satisfactory)	bbb/bbb-	bbb-/bb+	bb

Southwestern Electric Power Company

Standard & Poor's Credit Metrics
(Pre-Tax Rate of Return)

Line	Description	Amount (1)	Weight (2)	Cost (3)	Weighted Cost (4)	Pre-Tax Weighted Cost (5)
1	Long-Term Debt	$ 2,521,046,613	50.63%	4.18%	2.11%	2.11%
2	Common Equity	$ 2,458,534,232	49.37%	9.15%	4.52%	5.89%
3	**Total**	**$ 4,979,580,845**	**100.00%**		**6.63%**	**8.00%**
4	Tax Conversion Factor*					1.30337

Sources:
Schedule K-1.
*Schedule A, page 2.

Southwestern Electric Power Company

Standard & Poor's Credit Metrics
(Off-Balance Sheet Debt)

Line	Description	Amount (1)	Weight (2)
1	Long-Term Debt	$ 2,521,046,613	48.07%
2	Short-Term Debt*	$ 90,103,357	1.72%
3	Off-Balance Sheet Debt**	$ 264,838,000	5.05%
4	**Total Debt**	**$ 2,785,884,613**	**53.12%**
5	Common Equity	$ 2,458,534,232	46.88%
6	**Total**	**$ 5,244,418,845**	**100.00%**

Sources:
Schedule K-1.
*Response to 4th RFI, TIEC 4-19.
**S&P Capital IQ, downloaded March 16, 2021.

Southwestern Electric Power Company

S&P Adjusted Debt Ratio
(Operating Subsidiaries of Value Line Electric, Gas and Water Utilities)
(Industry Medians)

Rating	Median	% Distribution of 10 Year Average		
		<50	50 to 55	>55
AA-	45.5%	100%	0%	0%
A+	56.2%	33%	0%	67%
A	49.0%	57%	21%	21%
A-	52.3%	29%	53%	18%
BBB+	50.2%	44%	41%	15%
BBB	55.3%	14%	29%	57%
BBB-	53.3%	0%	100%	0%

Source:
S&P Capital IQ, downloaded February 23, 2021.